

**Towards Decolonial Futures:
New Media, Digital Infrastructures, and Imagined Geographies of Palestine**

by

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ABSTRACT

Towards Decolonial Futures: New Media, Digital Infrastructures, and Imagined Geographies of Palestine explores the unexpected breaks and fault-lines within Israeli settler-colonialism that are exacerbated by new media objects and practices. The dissertation examines both content and form of media that represent Palestine, revealing the limitations and possibilities of new media objects to provide a platform for contesting settler-colonialism and imagining decolonial futures for subaltern subjects. The key questions of the dissertation are as follows: What work do digital representations of Palestine and Palestinian land do for identifying fissures in settler-colonial structures? How can an attention to the materiality of digital infrastructures illustrate the ways the digital shapes, affects, and (dis)allows alternative Palestinian futures and relationality? How can a “postcolonial digital studies” framework emerge that distances itself from techno-determinism to critically understand subaltern subjects’ engagements with technology? To address these framing questions, *Towards Decolonial Futures* focuses on objects that seek to reframe understandings of Palestine and Palestinian resistance: new site Al Jazeera English’s 360-degree video tour of al-Aqsa compound in East Jerusalem alongside Palestinian group Udna’s video of the razed village Mi’ar’s history and potential future; mobile video game *Liyla and the Shadows of War* that represents life in the Gaza Strip alongside ImpactGames desktop video game *Peacemaker: Israeli*

Palestinian Conflict that asks players to work towards a two-state solution; digital mapping practices on mobile application Waze and the open-source mapping community of OpenStreetMaps; and finally, incendiary kites and balloons released by Palestinians in the Gaza Strip in 2018. The network, a non-space that traverses geography while also beholden to infrastructure, acts as a site of encounter where questions regarding Palestinian futurity can be explored.

The dissertation models a method for future scholarship on postcolonial digital cultures by understanding technology as indeterminate objects embedded in structures of power. Through materialist postcolonial studies methods and digital culture analyses including close reading and discourse analysis, I examine both the content and form of media objects including circulation, infrastructure, and representation. The dissertation seeks to critically analyze the potential of media objects in re-framing users' understandings of Palestinian identity, land, and resistance. In other words, I demonstrate the political work new media forms allow for in building alternative decolonial Palestinian futures. *Towards Decolonial Futures* delineates the ways particular new media objects and practices gesture to challenging Israeli settler-colonialism and building towards Palestinian futurity. Rather than celebrating new media in a techno-determinist fashion, this dissertation shows the affordances and limitations of using technology that disavow the importance of geography but allow for reimagining the relationship between Palestinians, Israeli settler-colonial structures, and land.

CHAPTER I

Introduction

This dissertation examines the role of new media and technology in imagining alternate Palestinian futures. *Towards Decolonial Futures: New Media, Digital Infrastructures, and Imagined Geographies of Palestine* centers new media practices and objects that represent Palestine to elaborate on theories of mediation, relationality, and geography. The dissertation addresses the questions: What work do digital representations of Palestine and Palestinian land do for identifying fissures in settler-colonial structures? How can an attention to the materiality of digital infrastructures illustrate the ways the digital shapes, affects, and (dis)allows alternative Palestinian futures and relationality? How can a “postcolonial digital studies” framework emerge that distances itself from techno-determinism to critically understand subaltern subjects’ engagements with technology? New media formats allow for different engagements with the world, including redrawing lines of access, providing opportunities for critical play, and questioning the significance of geography. Therefore, *Towards Decolonial Futures* contends that the digital technology allow for envisioning alternative relationalites. The dissertation is invested in the potentiality of new media objects to facilitate imagining alternate futures for subaltern subjects.

This dissertation makes the following interventions: providing attention to technology in a non-U.S./European context (site), reading media as a text situated within a specific cultural context (theoretical framework), and engaging in a materialist postcolonial inquiry that centers technology (method). Taken together, these interventions allow us to understand new media as power-laden objects that structure communication, and therefore social relations. The site of Palestinian new media demands an interdisciplinary approach that is attuning to the form of digital technologies while also allowing for an analysis of resistance, geography, and settler-colonialism.

Postcolonial Studies and Palestine

The site of Palestinian new media demands an engagement with postcolonial studies. The field premises a continuation of colonialism as a sociopolitical process even after decolonization. Israeli occupation of Palestine can be understood through Israel's status as a "post-colonial colony." Joseph Massad explains that the synchronicity of Israel's establishment in 1948 with colonial disarmament is leveraged within Israeli discourse "to recontextualize the new Zionist territorial entity as one established *against*, not *via*, colonialism... an attempt to *rehistoricize the new Zionist era as a postcolonial one*."¹ The roots of Zionism are found during the second wave of European expansionism into Africa and Asia even as Israel formulates Jewish identity as an indigenous one. Therefore, the settlement of Palestinian lands is recast as an indigenous reclamation of geography.

¹ Massad, Joseph. "The 'Post-Colonial' Colony: Time, Space, and Bodies in Palestine/Israel." In *The Pre-occupation of Postcolonial Studies*, by Fawzia Afzal-Khan. Durham, NC: Duke University Press, 2000.

The use of postcolonial theories by and against Palestinians underscores the centrality of Palestine to the field.² Rather than an anomaly of the postcolonial era, Palestine illustrates the change in regimes of power that work towards creating vulnerable populations. Broadly cited, Achilles Mbembe centers Palestine as a site to formulate necropower as "the generalized instrumentalization of human existence and the material destruction of human bodies and populations."³ Mbembe looks to the segmentation of Palestinian territory as an exercise of power that takes into account topography and terrain. That terrain is then further divided, Mbembe explains in a delineation of Israeli occupation of airspace by satellites, unmanned air vehicles, and assault helicopters. The segmentation of Palestinian land works to increase the indigenous population's vulnerability to premature death.

As in Mbembe's work, the centrality of digital technologies to Israeli colonialism is highlighted in this dissertation. The Israeli occupation of Palestine is a highly technologized one. Biometric identification systems at checkpoints, drones, and

² "Necropolitics" is not the first text in the field to think about Palestine in relation to postcolonial formulations of power. Edward Sa'id, one of the key figures of postcolonial studies alongside Fanon, emphasizes the need to think through the convergence of decolonization worldwide and the Palestinian struggle in his text *The Question of Palestine*. His foundational book *Orientalism* also opens with an explanation of the author's positionality as a Palestinian Christian educated in Egypt with a doctorate from Harvard in English. Sa'id's investment in formulating Orientalism as a style of thought that allows for Western flexible positional superiority stems from his experience as the killable and conquerable Other. Sa'id's essay "Zionism from the Standpoint of its Victims" in the edited collection *Dangerous Liaisons: Gender, Nation, and Postcolonial Perspectives* re-reads George Eliot's *Daniel Deronda* as a Zionist narrative. He provides a counterhistory to triumphalist Zionist narratives like Eliot's and inscribes Zionism as a colonial movement. Ella Shohat's essay "Sephardism in Israel: Zionism from the Standpoint of Its Jewish Victims" engages in a dialogue with Sa'id to discuss the de-Orientalizing of Sephardic Jews and the ideological supremacy of Ashkenazim in Israel.

³ Mbembe, Achille. "Necropolitics." *Foucault in an Age of Terror*, 2008, 152-82. doi:10.1057/9780230584334_9.

surveillance of online activity are some examples of the way Israel leverages technology. While I understand technology as mechanisms of discipline within the context of Israeli occupation, I also look to the logics of new media to understand how a format or platform's technical capabilities facilitate decolonial imaginings.

Key Concepts: Technology and Media

The second field this inquiry engages with is new media studies. My investment in the field is both theoretical and methodological. Particularly, new media studies as a field is concerned with the ways power operates through mundane digital objects.⁴ The central question of this developing field regards how new technologies are manifestations of and manifest power. To understand flows of power through mundane objects, new media studies regards technology as “a social process, a mode of organizing social relationships” as argued by critical theorist Herbert Marcuse.⁵ Centering the relationship between objects and sociality allows for alternative understandings of the ways power operates. New media studies allows for an object-oriented ontology, an understanding of the agency of the non-human. Object oriented ontology shares a theoretical origin with new media studies in Heideggerian thought. The German philosopher argues that objects are understood as instruments of use, and that this understanding of things as sources of raw materials to be used by humans. Rather, technology is not neutral or mundane, but

⁴ Foundational texts center one's relationship with the world as formulated and/or affected by the technologies of the age of information. The post-war period serves as a backdrop for scholarly work on the ways media transform subjectivity. The development of Cold War technologies in the United States and Germany, and the Cold War era use of media to disseminate propaganda gives rise to questions of power within the field.

⁵ Marcuse, Herbert. "Social Implications of Technology." *The Essential Frankfurt School Reader*, ed. Andrew Arato. Continuum Publishers. pp. 138-162

interpellative objects that change the essence of both people and environments.⁶

However, object oriented ontology does not give anthropomorphic attributes to the non-human. Neither does digital studies advocate for a determinist understanding of new media. Instead, both optics understand technologies as both resulting of and shaping the social.

This dissertation formulates an orientation towards new media objects as products of social processes and actants (non-human agents/ actors) within the field of social relations.⁷ Because digital technologies are a product of an alliance between universities, the military, and industry in the 1970s in the face of the Cold War, we can see the Internet as both a disciplinary apparatus and an utopist ideal for interconnection. Therefore, new media within the context of Palestine must be understood both as an instrument of Israeli settler-colonialism and a resource for Palestinian activists.

New media studies allows for a variety of methods that depend on the object of study and the questions asked of the research site. The below visualization illustrates the

⁶ Heidegger, Martin. "The Question Concerning Technology." 1977.

⁷ Bruno Latour's *Reassembling the Social* is a central text to digital studies, though it is published as an anthropology and sociology text. His contribution to the field is the development of actor-network theory as an amendment of object-oriented ontology. He defines an actor as "a movement, a displacement, a transformation, a translation, an enrollment...an association between entities which are in no way recognizable as being social in the ordinary manner, except during the brief moment when they are reshuffled together" (65). Published a year after Terranova's text, this critique of sociology's tendency to attribute relations to fixed causes rather than interrogating the social as a rhizomatic assemblage of human and non-human interactions furthers the Deleuzian framework many in digital studies are in conversation with. He argues that multiple actors (including objects, which Latour asserts have agency) momentarily associate into the social, which rather than a fixed and given process, is fluid and exceptional.

various methods of new media theorists, from “doing” to “theorizing” media and focusing on interfaces or structures.⁸

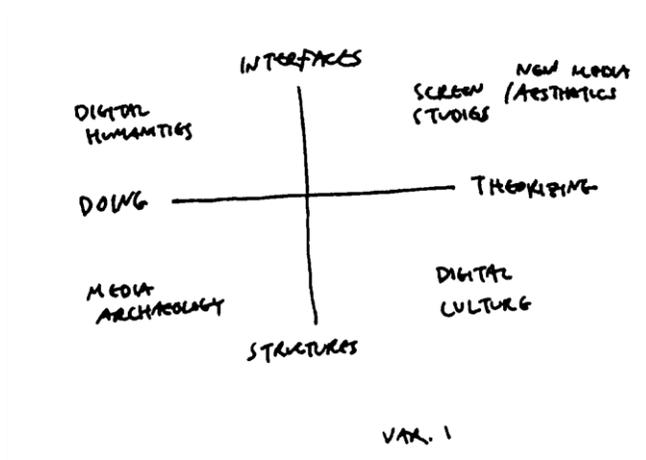


Figure 1: New Media Theories and Methods

I situate my project within digital culture or “theorizing” “structures.” This allows me to work in the spirit of materialist formulations of postcolonial studies because of a commitment to doing theoretical work regarding power, but also an investment in looking to the materiality of new media.

The formulation of “digital culture” as an optic understands technology alongside theories of power and culture, an intervention that brings American studies and cultural studies into the fold of media studies. Amy Kaplan explains that U.S. empire, postcolonial studies, and culture must be analyzed together: “Imperialism as a political or economic process abroad is inseparable from the social relations and cultural discourses of race, gender, ethnicity, and class at home.”⁹ Israeli settler-colonialism must be understood in tandem with U.S. empire, as the latter facilitates the former.

Additionally, empire is built and sustained through flows of capital. A materialist formulation of postcolonial studies elaborates on the economies of empire. Materialism

⁸ Lisa Nakamura, *Introduction to Digital Studies* (Lecture, 2014).

⁹ Amy Kaplan, *Cultures of United States Imperialism* (1993)

centers the historical and material conditions of cultural texts and emancipatory struggles. Scholarship in postcolonial studies in the early 2000s sees a continued investment in Marxist theory, which is one articulation of materialism. Institutions like the World Bank and the International Monetary Fund were established at the end of World War II to discipline countries. The Asian financial crisis of 1997 and the institutions' interventions in Nicaragua, Zaire, and other countries in the late 80s and 90s influenced many authors to re-examine the role of capitalism in the aftermath of the Cold War.¹⁰

Materialist formulations of postcolonial studies operate in a register similar to digital media studies methods with a focus on flows of capital and the materiality of objects and commodities. I find Franz Fanon's *A Dying Colonialism* as a model for scholarship invested in both postcolonial studies and media studies. The chapter in question, "This is the Voice of Algeria," engages in a sort of sociological study of French Algerians and Arab Algerians in relation to radio ownership. Fanon explains that the various Arab uprisings in Morocco, Tunisia, and elsewhere, along with the establishment of broadcasting networks in Syria, Lebanon and Egypt, prompted Arab Algerians to seek out radio broadcasts. Temporally, these events coincide with the rise of pan-Arabism in the 1950s and 60s as a socialist ideology that seeks for the unified front of Arab nations. Pan-Arabism and Arab uprisings against colonial powers prompted a change in Arab Algerians' understanding of radio: "*The Algerian who wanted to live up to the Revolution, had at last the possibility of hearing an official voice, the voice of the*

¹⁰ Michael Hardt and Antonio Negri, for example, examine the titular term in their 2000 publication *Empire* as a new iteration of sovereignty that is decentered and deterritorialized. Drawing on Gilles Deleuze, the authors argue that Empire suspends history and advocate for a materialist reading of global capitalism. They assert that such an understanding of empire allows for the network system of global capital to be read as an opportune space for resistance.

combatants, explain the combat to him, tell him the story of the Liberation on the march, and incorporate it into the nation's new life." (italics in original) Before, broadcasts would be in French and served as a way to keep alive colonists' culture in Algeria. However, the eventual acquisition of radio sets in the early 1950s led to the technology's use for organizing and empowering Arab subjects of European colonies.

Fanon's inquiry is not considered a traditional media studies work, as the field focuses on television, film, and digital media with few exceptions. Additionally, the United States and Europe are privileged sites centered in media studies, which makes Fanon's focus on Algeria unusual. Fanon's methods, however, are similar to various studies in new media studies today. Firstly, he reads the use and circulation of a media object in 1950s Algeria. Secondly, Fanon builds an argument regarding technology as structuring social relationships. Finally, he gestures to the infrastructural limitations of radio's popularity. As a result, "This is the Voice of Algeria" performs a critical analysis of technology and community organizing that departs from determinism. The intersection of new media studies and postcolonial studies results in a capacious reading of technology and organizing that resists the temptation to credit technology for subaltern resistance. At the same time, technology's affordances and limitations are also central to Fanon's chapter.

Similarly, I work to understand new media objects as facilitating Palestinian solidarity and movement building. The objects at the center of this dissertation require a social analysis as well as a close reading of technologies.

Postcolonial studies also features as a counterpoint to new media studies in the latter field's privileging of the United States, Canada, and Western Europe. Much of this

work assumes access to digital media objects and technologies. Oftentimes, scholarship that attempts to center different geographies is limited to theorizing how to bridge the “digital divide.” There is an assumption of lack, that the third world has not yet caught up to the technological savvy of the first world. From a postcolonial studies perspective, this type of inquiry is unsatisfactory and echoes what subaltern studies criticizes as well meaning work that relegates the racialized Other as a relic and empties the historical significance of colonialism to ideas like development and urbanization.

There is also a growing interest in Palestine studies literature that focuses on the intersection of technology, new media, and Palestine.¹¹ Broadly, the field is invested in what Walid Khalidi coins, “the ever-growing accumulation of debris generated on that fateful day of 2 November 1917 by the so-called Balfour Declaration, the single most destructive political document of the twentieth century on the Middle East.” Recently, there has been an interest in understanding the *longue durée* of the Balfour Declaration in tandem with new technologies. Key literature includes Adi Kuntsman and Rebecca Stein’s *Digital Militarism: Israel’s Occupation in the Social Media Age* that traces Israel’s leveraging of social media in the occupation of Palestine. The authors coin the titular term as “the process by which digital communication platforms and consumer practices have...become militarized tools in the hands of state and nonstate actors.”¹² Kuntsman and Stein make a key intervention in reading Israeli uses of platforms to further narratives and process of settler-colonialism. For example, the authors read the

¹¹ See also: Brittany Dawson, “Interview with Gabriel Schivone: U.S. Borderlands, Israel’s Latest Surveillance Technology Laboratory” in *Journal of Palestine Studies* Vol. 47 No. 4 (2018) doi: 10.1525/jps.2018.47.4.57 and Gil Hochberg, *Visual Occupations: Violence and Visibility in a Conflict Zone* (Duke, 2015);

¹² Kuntsman, Adi and Rebecca L. Stein. *Digital Militarism: Israel's Occupation in the Social Media Age* (Cambridge University Press, 2015)

Israeli Defense Force’s Youtube channel as normalizing state militarism through viral dance challenge videos. Anna Kensicki analyzes another level of digital media—information and communication technologies (ICT)—to understand the parallels in language around development alongside settler-colonialism. Kensicki explains, “...for Jewish Israeli society, hyperconnectivity enhances Israeli nationalism and digital citizenship. For the Palestinians who remain on either side of the Green Line, in contrast, low levels of connectivity have further fragmented the Palestinian national movement...”¹³ Kensicki intervenes in criticisms of ICT for economic development (ICT4D) that parallel development with colonial modernizing missions. Contrastingly, Kensicki explains the intersections of ICT4D and settler-colonialism that aims to wipe out indigenous groups and undermine the sociopolitical, economic, and cultural life of those that remain. Kensicki’s work demonstrates both ICT4D and settler-colonialism’s orientation towards geography as aiming to annex, develop, and re-shape the landscape through infrastructure.

This dissertation works on an intermediate level between that of Stein and Kuntsman (content) and Kensicki (infrastructure) to a reading of media objects and practices. I look at how the *logics* of new media—as well as information and infrastructures—facilitate and foreclose Palestinian futures. Furthermore, I have chosen to look to Palestinian media in order to take seriously the work Stein, Kuntsman, Kensicki, and others have done while also taking into account Palestinian’s increased use of new media for working against Israeli settler-colonialism. Therefore, this project

¹³ Kensicki, Anna (2019). “‘Smart’ Colonialism and Digital Divestment: A Case Study” in *Journal of Palestine Studies* Vol XLVIII, No 2. doi:10.1525/jps.2019.48.2.7.

works between the spaces of techno-utopianism and an understanding of Israeli use of technology against Palestinians.

Key Concepts: Postcolonial, Decolonial, and Anticolonial

Throughout this dissertation, I slip between using the terms decolonial and anticolonial. Both refer to types of organizing against settler-colonialism and soft forms of domination through international institutions like the World Bank. Ben Herzog explains:

“Anticolonialism and decolonialism can be seen as two reactions to traditional colonialism and its successor, neocolonialism. Anticolonialism is the political struggle of colonized people against their cultural, economic, and political domination. Decolonialism shares the same goal, and therefore sometimes the terms are used interchangeably. However, decolonialism can also be understood as a specific anticolonial ideology which emphasizes the need for the restoration of local control in order to gain both political sovereignty and freedom from the colonial consciousness which can remain long after the actual colonial situation has ended.”¹⁴

Therefore, anticolonialism refers to the effort to dismantle settler-colonial structures, while decolonialism includes restoration of indigenous structures and knowledge. Both terms differ from postcolonial, which is an historical periodization that refers to the period after formal Western colonial rule characterized by the continued supremacy of colonizing nations through informal rule.

¹⁴ Herzog, B. (2013). “Anticolonialism, decolonialism, neocolonialism.” in *The Encyclopedia of Global Human Migration*, I. Ness (Ed.). doi: [10.1002/9781444351071.wbeghm032](https://doi.org/10.1002/9781444351071.wbeghm032)

Key Concept: Mediation

A central term for this dissertation is mediation. *Excommunication: Three Inquiries in Media and Mediation* compiles essays from Alexander Galloway, Eugene Thacker, and McKenzie Wark on the im/possibility of mediation. The text develops a theory of excommunication, defined as the fantasy of an end to all communication that evokes the impossibility and insufficiency of communication: “media reveal inaccessibility in and of itself-- they make accessible the inaccessible-- in its inaccessibility.”¹⁵ The authors define mediation as “those moments when one communicates with or connects to that which is, by definition, inaccessible.” Mediation signifies the impossibility of communication and works to correct this impossibility. The mediation of human-computer interaction is through software that makes the technical processing of a computer understandable to a user. Media, in themselves, carry information. As Marshall McLuhan argues, “the medium is the message.” Mediation, rather than being a mundane, transparent process, structures communication itself. Mediation, therefore, is another type of relationality. It is an intervention between two human or non-human entities, and defines the relationship between the two.

Sarah Kember and Joanna Zylińska provide a historiography of mediation in their text *Life After New Media: Mediation as a Vital Process*.¹⁶ They delineate two frameworks for the study of mediation in scholarship. The first is found within the social sciences and communications studies and uses empirical research and social theories to think through the implications of mediation regarding political structures, economic

¹⁵ Galloway, Alexander, Eugene Thacker, and McKenzie Wark. *Excommunication: Three Inquiries in Media and Mediation*. (TRIOS, 2013).

¹⁶ Kember, Sarah, and Joanna Zylińska. *Life after New Media: Mediation as a Vital Process*. Cambridge: MIT Press, 2012.

influences, social effects, and individual agency. The other strand of thought regarding mediation is based in the humanities that reads media as text and is concerned with what new media mean. Drawing from these genealogies, Kember and Zylynska define mediation as “a key trope for understanding and articulating our being in, and becoming with, the technological world, our emergence and ways of interacting with it, as well as the acts and processes of temporarily stabilizing the world into media, agents, relations and networks.” Mediation is a process of differentiation, the “temporal stabilization of mediation into discrete objects and formation.” The authors center the biological, social, and political processes of mediation, arguing that technical and biological processes of mediation converge to allow for humans to undergo the same reproduction, transformation, flattening, and patenting as media objects. What is particularly useful from Kember and Zylynska’s text is the emphasis on mediation as a temporal process.

Throughout this dissertation I use the term “relationality” to reference the temporary stabilization of relations as a product of mediation. I build on theorizations of mediation as a technical process in combination with the concept of relationality as defined through subaltern studies. While the term relationality is not coined in this body of work, relationality best describes the implication of colonial formations across time. Subaltern studies specifically is invested in the ways third world subjects are multiply implicated in colonial formations. Gayatri Spivak and others deny the salience of Manichean dyads of colonizer/colonized to think through the ways third world subjects engage with structures of power. In other words, subaltern studies is concerned with the ways subjects are imbricated in structures of power. Mediation similarly gestures to the ways communication and relationality are structured through ideology and the logics of

technologies. Software functions as ideology. Software both obscures and reflects the mechanic processes of computation. Software makes the intangible visible and renders the visible as invisible. Wendy Chun explains:

"software-- designed to obfuscate the machine and create a virtual one based on buried commands-- has led to the overwhelming notion of computation as transparent. This transparency has less to do with actual technological operations than with the 'micro world' established by computation"¹⁷

Just as mediation refers to communication and connection with an agent that is inaccessible, new media obfuscates technical processes for user-friendliness. My investment in analyzing the contradictory goals of new media-- to make visible and accessible that which is obfuscated and inaccessible—stems from the multiple imbrications of digital technology in Palestinian life. Palestinians are hyper-subjected to

¹⁷ Chun's "On Software, or the Persistence of Visual Knowledge" draws comparisons between software and ideology. She argues that software has become common sense, conflating order with action, and disciplining users through the production of desire. She makes the claim that software makes the intangible visible and renders the visible as invisible. Within this claim lies a critique of Lev Manovich, who coins the term transcoding through his treatment of computation as translation: "one's computer constantly acts in ways beyond one's control. To see software as merely 'transcoding' erases the computation necessary for computers to run." By this, Chun means that software cannot be abstracted from hardware (citing the ENIAC girls as "software" who "programmed" by switching cables); "automatic programming is an abstraction that allows the production of computer-enabled human readable code" which aims to be replicable and iterable regardless of machine and in the absence of a programmer. Chun uses the narrative sequence of the desktop, the systematic erasure of women from the history of computing, and the business decisions that led to the development of software to argue that "software-- designed to obfuscate the machine and create a virtual one based on buried commands-- has led to the overwhelming notion of computation as transparent. This transparency has less to do with actual technological operations than with the 'micro world' established by computation" (43) In conclusion, Chun draws the explicit connection between ideology and software by noting the interpellation of a user, the creation of a false consciousness, and the representation of imaginary relations of individuals to the conditions of their existence: "one obeys the law to the extent that it is incomprehensible *Is this not computation?*"

technologies of surveillance and discipline but have limited access to personal computing. Furthermore, much of contemporary Palestinian activism takes place online. This dissertation therefore seeks to understand the implications of contradicting technical logics on community building online.

Key Concept: Geography

Within postcolonial studies, the question of Palestine has always been one concerning geography. Israeli justification for colonialism rests on interpretations of indigenous relations to land. Particularly, Israeli interpretation of Ottoman Land Law allowed for settlement to be justified through the argument that Palestinians did not know how to cultivate land, while European Jews could “make the desert bloom.” Israeli discourse also flattens the specificity of geography by pushing Palestinians to refugee camps in Jordan, Lebanon, and other Arab lands.

In media studies, the significance of geography is oftentimes disavowed within techno-utopian discourse that imagines digital networks exceeding borders to equally distribute technological access and resources. However, access to new media depends on infrastructure.

Therefore, reading Palestinian new media requires an engagement with geography to counteract both Israeli and media culture’s disavowal of geography. The non-space of the Internet and World Wide Web cannot replace the space Palestinian land. Rather, Miriyam Aouragh and Helga Tawil-Souri argue new media facilitates settler-colonial processes of displacement. An example of reading media within the context of Palestine

is the oeuvre of Miriyam Aouragh.¹⁸ The author traces the development of information and communication technologies in the West bank and Gaza as part of the Oslo negotiations of 1993, tracing the difficulties faced by Palestinians in establishing infrastructure while under occupation, siege, and blockade. Along with Helga Tawil-Souri, Aouragh coins the term cyber-colonialism, "contact and influence between radically asymmetrical powers" as reinforced by the Internet, to think through online social activism, NGO-provided internet centers, and attacks on Palestinian infrastructure conducted by the Israeli army to demonstrate that digital technologies are complicit in the ongoing occupation of Palestine.¹⁹ Aouragh uses the .ps domain to show the permeation of settler-colonial structures within digital networks. .Ps was established in 2000 after five years of campaigning illustrates the tension between online mobility and physical immobility for Palestinians. The .ps domain was inscribed onto the 1967 borders of the Palestinian territory, effectively re-territorializing Palestine in conversation with particular ideas about sovereignty and Palestinian indigeneity. While new media is lauded as a way to overcome geography, the dependence of technology on infrastructure demonstrates this impossibility.

This dissertation instead shows the ways new media can be used to reinscribe the significance of geography to subaltern subjects. Therefore, each chapter references the remaking, reimagining, and re-casting of land as a feature of new media objects and practices.

¹⁸ Aouragh, Miriyam. *Palestine Online: Transnationalism, the Internet and the Construction of Identity*. London: I.B. Tauris, 2012.

¹⁹ Helga Tawil-Souri, and Miriyam Aouragh. "INTIFADA 3.0? CYBER COLONIALISM AND PALESTINIAN RESISTANCE." *The Arab Studies Journal* 22, no. 1 (1/4/2014): 102–33.

Mediation, Circulation, and the 2014 Operation Protective Edge

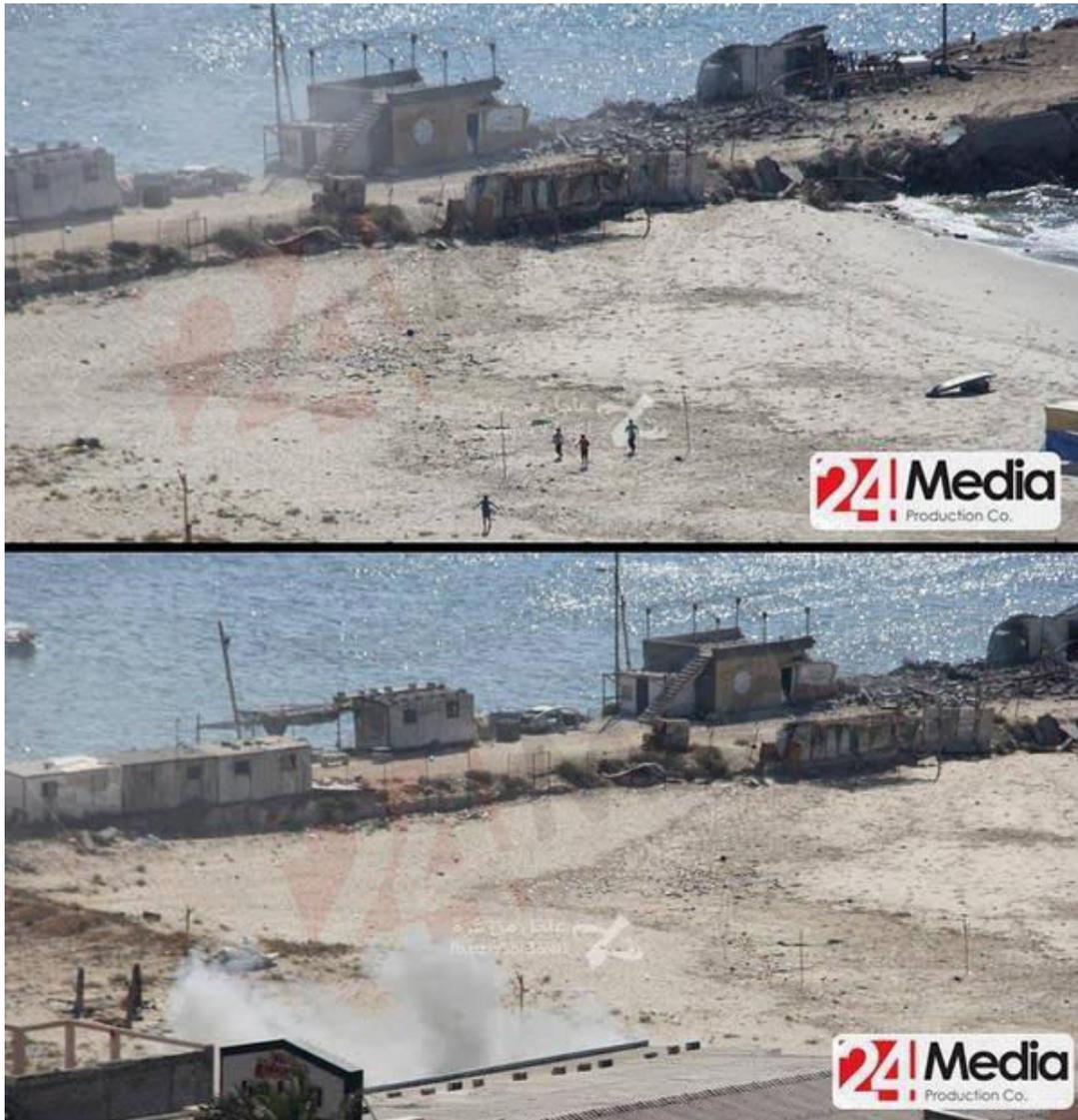


Figure 2: 24 Media Photograph of 2014 Beachside Killings

I provide the following brief analysis of photographs circulated in Palestine activist networks to elaborate on the methods and key terms this dissertation puts forth. Rather than engaging in a purely visual analysis of the images, I include analyses of a) information communications infrastructure in Palestine; b) the relationship between blockaded Gazans and an international audience; c) the viewing practices of a Facebook user and the platform's network and allowances; d) the visual field of the camera that

took the photos. Each of these mediations—from user to user, user to computer, computer to computer—are not taken as mundane or transparent parts of circulation but as conditions of possibility for communication.

Facebook users' circulation of images from the July 2014 beachside killings of Ismail, Ahed, Zakariya, and Mohammad Bakir in Gaza can be analyzed through the concept of mediation. Gaza-based Media 24 Production Company captured the killing of the Bakir children (aged 9-11) as they played soccer at the beach. A split-screen photo of before and after Israeli warships fired on the beach near Al Deira hotel, where many international journalists were staying, circulated widely after the news site posted the images on their Facebook page. The image illustrating before and after the shelling, disseminated by Gaza-based 24 Media on Facebook, is relatively small. The 98KB .jpeg would take about nine seconds to upload with a bandwidth of 128Kbps. The higher the compression rate, the more data is lost and the smaller the image and the faster the upload. An underresourced media station in a warzone with limited infrastructure can share a low-quality image faster than a high definition photograph. Since information and communication technologies (ICT) Palestinians are able to develop and utilize are lacking, the low quality images reference aesthetics of truth. Hito Steyerl argues that the poor image testifies to its conditions of existence:

“It cannot give a comprehensive account of the situation it is supposed to represent. But if whatever it tries to show is obscured, the conditions of its own visibility are plainly visible: it is a subaltern and indeterminate object, excluded

from legitimate discourse, from becoming fact, subject to disavowal, indifference, and repression.”²⁰

Steyerl identifies the low quality image as suspect due to the viewer’s heightened awareness of mediation. However, the ambivalent nature of images is not limited to high-compression file types. Every moment of mediation inherently implies distance, and this is an intrinsic part of media rather than a failing. While a low quality image foregrounds the indeterminacy of its mediation, all media articulate disconnection as well as connection.

The relationship between low-quality files and high-immersive media is complicated by the aerial image captured by 24 Media, which allows the viewer a panorama-like vision of the Gaza beach. The panorama centers the viewer in a landscape, and allows the viewer to exercise “optic and narrative control simultaneously by embedding objects, people, and places into one visual plane, and then organizing this image around the linear narration of explanatory lectures and pamphlet.”²¹ In this case the accompanying materials are the caption on 24 Media’s Facebook page that reads, “The only crime they committed is they were enjoying their summer vacation, beauty of the sea and sunshine. The kids were having fun and playing beside the beautiful Gaza sea beach.”²² The panorama illustrates an ideology similar to that of file compression: the viewer is centered as able to grasp a totalizing order, a singular narrative through the obscuring of unnecessary or redundant data. The image of the Gazan children on the

²⁰ Steyerl, Hito. *The Wretched of the Screen*. (Steinberg, 2012).138

²¹ Shelly Jarenski, “‘Delighted and Instructed’: African American Challenges to Panoramic Aesthetics in J. P. Ball, Kara Walker, and Frederick Douglass” in *American Quarterly* 65:1 (March 2013)

²² 24 Media

beach defies the narrative of the Israeli Defense Forces that the children were misidentified as Hamas fighters by allowing the viewer to see through the eye of an aerial surveillance machine much like the ones the Israeli military would have used in combat. At the same time, data is removed from the image, both from file compression and from the orientation of the image.

The effect of a panorama-like vision is circumvented to a certain extent by the computer screen it is viewed on, which Lev Manovich explains “frames a virtual world and that exists within the physical world of a viewer without completely blocking her visual field.”²³ However, the contrast between the framed world and the physical world that the viewer inhabits acts as a pedagogical tool to highlight, expose, and critique the uneven distribution of resources between the first and fourth world: “Connection is a way of formally articulating a prior (and perhaps, primordial) state of disconnection.”²⁴ The disjuncture between images of death and devastation as viewed by the Global North, as well as the need for captioning to explain the photographs, undermine the truth-value ascribed to both vision and mediation.

Facebook’s share and like function exemplify the unilaterality of mediation that is disguised as sociality. Geert Lovink explains, “The move from link to like as the dominant web currency symbolizes the shift in the attention economy from search-driven navigation to the self-referential or gated dwelling in social media.”²⁵ Rather than expanding social networks, social media re-creates insularity and segregation. However,

²³ Manovich, Lev. *The Language of New Media*. (MIT Press, 2002), 16.

²⁴ Galloway, Alexander, Eugene Thacker, and McKenzie Wark. *Excommunication: Three Inquiries in Media and Mediation*. (TRIOS, 2013). 89

²⁵ Lovink, Geert. *Networks Without a Cause: A Critique of Social Media*. Cambridge and Malden: Polity, 2012.

if social networks are akin to gated communities, posting graphic images of suffering and death mimics the disruption of protesters in an affluent neighborhood; Facebook is known to engage in content moderation both through its use of algorithms that determine interesting (and profitable) stories to display and news feeds and through the use of Global South labor to filter, moderate, and delete posts deemed inappropriate.²⁶ The dissemination of images depicting Palestinians on social networks acts as the formation of a counterpublic, or a relation among strangers creating alternative social space through the capture of attention.²⁷ The success of a counterpublic depends on circulation. For the pictures from 24 Media, the images' dissemination on Facebook is no accident; Gazan use of Facebook has been acknowledged as widespread, or as a Haaretz article framed the Strip, "the most Facebook friendly place on earth."²⁸ Facebook also changes all image types to the .jpeg format, both due to its verisimilitude and because of the metadata the platform can mine. The small size of a high compression image increases its virality and therefore widens the audience it commands, as digital media require consumption through temporally concentrated attention. Marxist scholar Tiziana Terranova asserts that attention is intrinsic to affect:

"Is our problem really that media propaganda is used to cover up the truth? Or is it more the case that the truth is not even covered up any more because what is

²⁶ Chen, Adrian. "The Laborers Who Keep Dick Pics and Beheadings Out of Your Facebook Feed." *Wired*. June 22, 2018. Accessed June 13, 2019. <https://www.wired.com/2014/10/content-moderation/>.

²⁷ For more on digital counterpublics, see Marc Lamont Hill, "'Thank You, Black Twitter': State Violence, Digital Counterpublics, and Pedagogies of Resistance" in *Urban Education* 53:2 (January 2018), pp. 286-302

²⁸ "Gaza, the Most Facebook Friendly Place on Earth." *Haaretz.com*. January 11, 2018. Accessed June 13, 2019. <http://www.haaretz.com/print-edition/features/gaza-the-most-facebook-friendly-place-on-earth-1.365970>.

important is not to shield people from the truth but to have an effective strategy that is able to capture and hold together a certain type of intensity?”²⁹

Terranova pushes against the idea that media acts as a truth-telling device, arguing instead that images and ideas are only effective if they can hold attention through affective resonance. Facebook, in particular, is formulated around an affect of boredom on a platform that allows for “asynchronized shared experience at a distance” with the imagined co-presence of a curated community.³⁰ The interruption of the affect of a network with death and suffering (contrasting from cat videos and banal status updates) evokes anxiety. The web has been effectively domesticated through segmentation of the ether by infrastructural imperialism, where particular platforms determine the flows of information. For Facebook, the algorithms, terms of use, and post moderation act as an interpellative structure that is not self-organized. Therefore, the imposition of graphic imagery onto carefully curated Facebook allows for a counterpublic to enter the realm of popular discourse through an interruption of normative affect, and to therefore radically transform that network.

For activists in the Global North, these images are separated from their modes of production. However, for Gazans, the dissemination of photos documenting the material reality of their existence during a massacre must circumvent the structures of Israeli cyber colonialism. The politics of Palestinian identity are embedded in each .jpeg file that is uploaded and shared online as bioweapons, defined by Terranova as images “let loose

²⁹ Terranova, Tiziana. *Network culture: politics for the information age*. (Pluto Press, 2004). 142

³⁰ Wittkower, D.E. (2013). “Boredom on facebook.” In G. Lovink & M. Rasch (Eds.), *Unlike us reader: Social media monopolies and their alternatives* (pp. 180-188). Amsterdam: Institute of Network Cultures

into the informational ecology with a mission to infect.”³¹ Images exist in relation to each other, and their proximity to each other allows for the usefulness of contagion as a framework to think through the proliferation of media. Contagion can be thought of as separate from transmission; with each share, comment, and like, the split-screen photo of Gazan children works symbiotically in an ecology of imagery that renders Palestinians as victims, terrorists, and icons. The spread of graphic images of death and suffering aim to both enter a pro-Palestinian counterpublic into discourse but also to transform the arena of contestation. The ecology of images mutates through the capturing of attention via resonance, defined by Susanna Paasonen as “moments and experiences of being moved, touched, and affected by what is tuned to ‘the right frequency.’”³² The aspiration of activists, then, is to radically transform perceptions and imaginations through the viral sharing of images of death such as that of Ismail, Ahed, Zakariyah, and Mohammad.

Understanding Palestine through New Media

As demonstrated in the above close reading, the primary method this dissertation engages with is reading technology as a text. This is not to say that the only attention given is to the message transmitted through technology. Rather, I read the logics embedded in technology as determining the contours of the mediation allowed. As Wendy Chun argues, “To see software as merely ‘transcoding’ erases the computation necessary for computers to run.”³³ A focus on the message rather than the medium obfuscates the machine, formulating a black box that the user cannot understand. The

³¹ Terranova, Tiziana. *Network culture: politics for the information age*. (Pluto Press, 2004).

³² Paasonen, Susanna. *Carnal Resonance: Affect and Online Pornography*. (MIT, 2011).

³³ Chun, Wendy Hui Kyong. "On Software, or the Persistence of Visual Knowledge." *Grey Room 18* (Winter 2004): 26-51.

seeming transparency of computer-mediated communication, the mundane nature of ubiquitous technology, actually works to occlude the process of mediation. Rather, new media objects like the photos from a Gaza beach requires an understanding of Palestinian infrastructure (ICT development in Gaza), the materiality of technology and capture devices (hardware), and the affordances of new media formats and social networks (.jpeg and Facebook). Reading technology as a text at different levels—i.e. infrastructure, hardware, software—allows us to take seriously the question of what types of relationality are made possible in a networked society.

Outlining the way technology functions and circulates is a method in line with materialist formulations of postcolonial studies that bring to light power in international structures. Lisa Parks similarly reads media as text in the anthology *Signal Traffic*: “As a suggestive concept, then, signal traffic demarcates a critical shift away from the analysis of screened content alone and toward an understanding of how content moves through the world and how this movement affects content’s form.”³⁴ Parks, et. al. privilege infrastructure over screened content in order to understand the structuring capacities of infrastructure on new media that oftentimes occludes the material. I make a similar move to look at the symbiotic relationship between screened content and platform logics, the message and the medium. The logics of platforms determine the affordances and limitations of what can be communicated. For example, Twitter’s 280-character limit on posts changes the way users interact on that platform as opposed to on Tumblr, which is more image-heavy. Affordances of media therefore do structuring work for communication in a way that is normalized.

³⁴ Parks, Lisa, and Nicole Starosielski. *Signal Traffic: Critical Studies of Media Infrastructures*. Urbana: University of Illinois Press, 2015.

The focus across my research is problematizing Western discourse of the digital's seemingly transparent role within anticolonial organizing. The spirit of this project is provoked by the discourse of U.S. news media outlets during the 2011 Arab Spring that exalted the digital as formulating the conditions for Arab protest. Rather, this inquiry pushes against techno-utopian visions to understand how new media functions in community and movement building. Zeynep Tufekci's *Twitter and Tear Gas* is a departure from techno-utopian narratives of the Arab Spring that credit technology over the organizing of Arab youth. She explains, "These technologies were not merely basic tools; their new capabilities allowed protesters to reimagine and alter the practice of protests and movement building..."³⁵ My work follows the spirit of Tufekci's text in looking to the mechanisms of media that afford a different orientation towards Palestine organizing.

Chapter Overviews

The dissertation analyzes both the form and content of media representing Palestine. I argue that new media visualizations of Palestine are constituted by the affordances and limitations of digital technology. In other words, digital projects imagining Palestinian futures are conceptually limited or enabled by the constraints and affordances of platforms. Furthermore, new media redraws lines of access based on information communications technology infrastructure. Therefore, the collaborative and subversive potential of new media to facilitate anti-colonial organizing is offset by these lines of access. Each chapter brings together digital studies and postcolonial studies to

³⁵ Tufekci, Zeynep. *TWITTER AND TEAR GAS: The Power and Fragility of Networked Protest*. Place of Publication Not Identified: YALE University Press, 2018.

analyze the materiality of new media as well as transnational flows of technology.

My first chapter close reads an interactive video tour of Jerusalem produced by international news site Al Jazeera to formulate “access” across valences of digital accessibility, colonial access, and infrastructure access in disability studies. In March of 2016, al Jazeera English uploaded four 360° videos of al-Aqsa compound, featuring Friday experiences of the Islamic holy sites in Jerusalem. “Millions of feet have walked these grounds, and now you can join them,” the narrator opens. The videographer provides viewers an opportunity to see the holy sites of Islam in Jerusalem that many Palestinians are banned from visiting. The 360° technology allows viewers to swipe or tilt and rotate mobile devices or drag the mouse on computers and laptops to view sites from any angle, providing an interactive and immersive experience. These videos allow the user to navigate within a full 360-degree frame of filmed content. “You have now experienced a day at al-Aqsa,” the narrator ends. The video tour uses Facebook’s 360-degree video player capabilities, developed in part through Facebook’s acquisition of virtual reality company Oculus VR. I pair the Al Jazeera tour with Palestinian grassroots organization Udna’s multi-genre three-dimensional rendering of destroyed village Mi’ar. Each object imagines what return of Palestinian refugees can look like given the segmentation and colonization of Palestinian land. Palestinian access to land is cast as a practical, community-driven, intergenerational, grassroots step towards decolonization. In this analysis, I formulate access as a problematic that invokes the multiple valences of the term including: new media studies analyses of the digital divide or differential access to new media across race, nation, gender, etc.; disability studies arguments for understanding access as intimately tied to political power and infrastructure; and post-

colonial studies pushback against colonial access in tourism and resource extraction of the Global South. I bring together these definitions of access to argue these digital projects convey an understanding of space that imagines decolonial futurity that circumvents Israeli policy to work towards a vision of Palestine determined by Palestinians.

I follow this chapter with one that analyzes mobile and desktop games that represent Palestine. The form of the digital game differs from video. Through close play of desktop game ImpactGames *Peacemaker: Israeli Palestinian Conflict* and mobile game *Liyla and the Shadows of War*, I show the potential of play to engage in future-building. Firstly, I argue that game rules and logics facilitate understandings of settler-colonialism by interpellating players in game worlds that limit user choice. For example, *Peacemaker* cancels many of the actions taken by the Palestinian character the user controls. The limits on Palestinian characters mimic the systemic exclusion of Palestinians from political action.

Secondly, I argue that a video game provides an interactive, immersive environment for users to experiment with game logics. This experimentation allows for users to imagine alternative built worlds, whether virtual or “real.” Therefore, video games can be a medium that allow for queer future-building, a critical longing for an alternative way of existing in the world.

In my third chapter, I center the 2016 Israeli Defense Forces (IDF) incursion of Qalandiya refugee camp. Two non-combat members of the IDF were directed through refugee camp Qalandiya. Using the navigation application Waze, the soldiers stumbled into the camp after failing to enable a setting that avoids areas “dangerous or prohibited

for Israelis to drive through.” An email statement from Waze spokeswoman Julie Mossler later clarified, “the driver deviated from the suggested route and as a result, entered the prohibited area.” The soldiers opened fire on Palestinian residents of the town, following IDF protocol, and shot 22-year old student Iyad Omar Sajadiyya in the head, killing him. This chapter argues that the erasure of Qalandiya from Israeli maps does not simply indicate the efficiency of settler-colonialism; erasure also facilitates *failures* or *errors* in settler-colonial structures. In moments like the unexpected presence of refugee camp Qalandiya, the inner workings of erasure are revealed, gesturing to the instability and indeterminacy of settler teleology. In other words, I argue that the *failure* of erasure is *constitutive* of settler-colonialism. Palestine’s disappearance on maps is not simply a tool of colonialism, but a productive phenomenon that works both towards and against the goals of settler-colonialism. To clarify, I am not arguing that erasure is *not* violent for Palestinians. The murder of Iyad Omar Sajadiyya is not something to be dismissed or brushed aside lightly. What I am gesturing towards in this chapter, however, is that settler-colonialism is not inevitable, that there are ruptures within the structure that can be leveraged. This chapter therefore looks to the productivity geographical erasure can do given the precarity of Palestinian life. The murder of Omar Sajadiyya due to navigational error indicates the ambivalence of erasure as simultaneously creating a disposable class of people subject to premature death *and* allowing for other ways of belonging to supersede mapping and inscription. The unmapped presence of Qalandiya forces itself into the colonial imaginary, challenging the Israeli myth of Palestine as “a land without a people for a people without a land” and illustrating the limitations of settler-colonial understandings of space. Qalandiya acts as an unexpected reminder of the limitations of

genocide, that New Imperial understandings of identity and nationhood cannot account for the products of erasure like the refugee camp.

The final chapter engages in an analysis of the 2018 deployment of incendiary balloons and kites by Palestinians in the Gaza Strip. These low-tech aerial explosives have destroyed over seven thousand dunams of Israeli land after floating into settlements and parks. This chapter examines these launches within the context of technological development in Palestine and Israel. The juxtaposition of low-tech balloons and kites against high-tech drones underscores the complicated relationship between Palestinians and technology. The flow of digital technology from the United States and Western Europe to Israel, along with Israel's tech hub "Silicon Wadi" and its close relationship to the Israeli Defense Forces, places Palestinians simultaneously (1) heavily in contact with technologies of surveillance and biopower, (2) limited in their access to information communication technologies, and (3) as outsourced skilled labor for Israel-based tech companies. Therefore, a low-tech weapon like incendiary aerial devices works to subvert assumptions about new media and technology as faster, more accurate, and more effective. What the deployment of incendiary balloons and kites demonstrates is the Israeli state's inability to leverage preventative measures against these attacks. The wildfires gesture to the fragility of highly technologized security states. I read the balloons and kites as media that facilitate communication between blockaded Gaza and an insulated Israeli public.

In each chapter, I examine the intersection of empire, infrastructure, and Palestinian representation in digital objects with attention to both content and form. This dissertation poses the question: how can an attention to the materiality of digital objects

illustrate the ways the digital affects, shapes, and (dis)allows imagining anti-colonial Palestinian futures? I argue that despite allowing for collaborative, cross-generational, and subversive practices of community building and archiving collective memory, new media redraws lines of accessibility. The limitations of form impact the content of digital imaginings of Palestinian futures. Drawing on methods like media archaeology and close reading, my analyses bring together disparate theoretical and methodological frameworks to understand new media's fraught imbrication in transnational power networks. My work expands new media studies by centering histories of colonialism, and extends ethnic studies by using the discipline's theoretical foundations to interrogate seemingly apolitical digital objects.

CHAPTER II

Post Spatial, Post Colonial: Accessing Palestine Digitally

Abstract

This essay centers two new media projects that imagine Palestinian decolonization given the occupation of Palestinian land: news site Al Jazeera English's 360-degree video tour of al-Aqsa compound in East Jerusalem and Palestinian grassroots organization Udna's three-dimensional rendering of destroyed village Mi'ar. These digital texts reimagine Palestinian access to land as a community-driven and intergenerational project. In this analysis, I formulate *access* as a term that invokes the following: new media analyses of the digital divide (or differential resources for obtaining to new media across lines of race, nation, gender, etc.); disability studies' notions of access as intimately tied to political power and infrastructure; and post-colonial studies' criticisms of colonial access in tourism and resource extraction of the Global South. I bring together these discursive nodes to formulate an understanding of space that imagines *decolonial futurity*. This future-oriented political practice works towards a vision of Palestine determined by Palestinians, as opposed to limiting pragmatic wars of maneuver. This inquiry therefore is centrally concerned with the ways activists for Palestine employ immersive digital media to formulate and work towards an attachment to decolonial futurity that is both practical and utopic.

This essay analyzes two digital projects that imagine Palestinian sovereignty with attentiveness to the significance of politics and space: first, a series of virtual tours of al-Aqsa compound in East Jerusalem, Palestine produced by Al Jazeera English, and second, oral history videos of destroyed Palestinian village Mi'ar developed by Palestinian group Udna. Through close reading these two projects, I show that the producers use new media to facilitate what Eric Ritskes calls “fugitive futurities of decolonization, seeking futures beyond colonial constructions of the possible and the sensible.”¹ I argue that the virtual tour of al-Aqsa compound and the oral history video of Mi'ar recast ideas of access to land and space through both *content* and *form*. While these objects expand access to al-Aqsa and Mi'ar through digital dissemination, they advocate for a decolonial futurity that is geographically specific, collaborative, and subversive.

However, new media redraws lines of accessibility based on infrastructure. Since the Oslo Accords first allowed Palestinians to build information communication technology infrastructure, there has been a tension between the isolation and division of Palestinian land and the promise of communication technology to bridge distance. Various Palestine activist groups and non-governmental organizations have worked towards this deferred borderlessness. For example, Miriyam Aouragh examines the Across Borders Project established in 1999 through Birzeit University that provided connectivity in various refugee camps in Jordan, Lebanon, and the Palestinian territories.² Curfews and sieges limited the work of the Across Borders Project, particularly in Gaza.

¹ Eric Ritskes, “Beyond and Against White Settler Colonialism in Palestine: Fugitive Futurities in Amir Nizar Zuabi’s ‘The Underground Ghetto City of Gaza’” *Cultural Studies Critical Methodologies* 17:1 (2017), 78.

² Miriyam Aouragh, *Palestine Online*, 1st ed., London: I.B. Tauris, 2012

In 2000, a five-year campaign concluded with the successful establishment of the .ps domain for Palestinian websites.³ The .ps domain relied on 1967 borders to make sense of the campaign for a Palestine-specific web domain, effectively re-territorializing Palestine within particular understandings of indigeneity, return, and sovereignty. Efforts to connect Gaza with Internet access are hampered by power outages and Israeli providers that service Palestinian companies.⁴ These are a sampling of projects that leverage new media to formulate alternative Palestinian geographies to combat the segmentation of Israeli settler colonialism.

Life in Palestine, however, prompts a rebuttal of techno-utopic understanding of technology as superseding geography. Rather than facilitating the bypass of territory, communication technologies re-mediate relationships to space. For Palestinians in the West Bank, for example, new media becomes another site where dispossession is apparent through the Israel's refusal to allow infrastructural development near the apartheid wall. Though technologies work to facilitate access and mobility by providing a platform for near-immediate communication, new media is also predicated on logics of inaccessibility and immobility. There are geographies that are connected and those that are not, geographies with access to the cloud and geographies that are transformed by submarine communications cables and server farms—though these are not mutually exclusive spaces. The tension of in/accessibility is apparent in the projects this paper centers, as in the objects Aouragh and other scholars analyze. What I propose here is not the uniqueness of the digital projects I examine here, but the opportunity digital

³ See citation 2

⁴ Rasha Abou Jalal, "How Gazans are dealing with Internet crisis," *Palestine Pulse* (9 July 2017), <https://www.al-monitor.com/pulse/originals/2017/07/gaza-power-cuts-electricity-crisis-internet-israel.html>

representations provide for an alternative orientation towards technology that is attentive to the implications of new media's disavowal of space while relying on infrastructure. This contradiction of in/accessibility, I argue, extends from hardware to software, from new media to the projects that use new media as a platform to represent and grapple with the politics of alternative Palestinian geographies. These limitations of form therefore impact the politics and content of digital imaginings of Palestinian futures. Digital projects regarding Palestinian sovereignty must grapple with the central tension of advocating for geographic specificity and rootedness on a platform representative of a digital culture that advocates for undifferentiated access as it redraws lines of accessibility.

Palestine has long been centered as a field of study within American studies, ethnic studies, and postcolonial studies. For many, the 2013 Association for Asian American Studies and American Studies Association endorsements of boycott, divestment, and sanctions was the first time Palestine entered into academic conversation. Rabab Abdulhadi and Dana M. Olwan explain the significance of Palestine to American studies beyond 2013 in the introduction to *American Quarterly's* 67th volume:

“...Palestine is not a recently found node for analysis or critique in the U.S. academy but a crystallization of radical theorizations of power, dominance, and resistance that have sharpened the field, broadening the definition of what constitutes American studies and transforming it from one that glorifies the ‘founding fathers,’ the myth of US exceptionalism, and the American miracle, as scholarship led by Native American and Indigenous scholars show, to a space of

radical critiques of U.S. Empire and settler colonialism, as the essays in this forum argue.”⁵

The roots of this connection reach even further back to the primary texts of postcolonial theory. In *The Question of Palestine* (1979), Edward Sa’id makes a case for understanding the convergence of decolonization worldwide and the Palestinian struggle, with the creation of Israel in 1948 occurring only a year after Indian independence. His seminal text *Orientalism* begins with an exploration of his Palestinian identity as the foundation for his thinking in regards to depictions of the East. Several decades later, Achilles Mbembe’s essay “Necropolitics” centered the occupation of Palestine to formulate late-modern colonialism as characterized by “the generalized instrumentalization of human existence and the material destruction of human bodies and populations.” Said, Mbembe, Ella Shohat, Joseph Massad, Keith Feldman, and others take Palestine as a field of inquiry. In doing so, these scholars remedy what Amy Kaplan identifies as a failures of critical inquiry in American studies: the absence of culture from a history of U.S. imperialism, the absence of empire from a study of American culture, and the absence of the U.S. from a study of postcolonial imperialism. When Palestine is centered in American studies, the ways the field has historically disavowed imperialism become untenable.

The relationship between American studies and digital humanities has also been called to question. Tara McPherson declares that “we must take seriously the question, why are the digital humanities so white? but also ask why American studies is not more

⁵ Rabab Abdulhadi and Dana M. Olwan, “Introduction: Shifting Geographies of Knowledge and Power: Palestine and American Studies” in *American Quarterly* 67:4 (2015), 993.

digital?”⁶ McPherson draws the history of UNIX together with the history of racial formation to make the claim that “technological formations are deeply bound up with our racial formations,” with technological modularity gaining popularity alongside covert racism and color blindness. Therefore, it is imperative to answer Alan Liu’s call for cultural criticism in the digital humanities, both to expand the theories and methods of digital humanities and of American studies. What sort of work can be done when we take seriously mundane technological objects as enacting social processes and organizing social relationships, in the words of Herbert Marcuse?⁷ How can American studies and the digital humanities come together to analyze phenomenon such as: the Israeli Defense Forces’ murder of Omar Sajadiyya due to Waze navigation error, Facebook suspending accounts of Palestinian journalists, and Hewlett-Packard outsourcing software development to Palestinians for cheap labor? Taking together Benita Parry’s materialist approaches to postcolonial studies alongside Siegfried Zielinski’s media archeology, for example, can provide a productive entry point to bringing American studies, postcolonial studies, and digital studies together and allowing each field to transform the other.

Touring Palestine

In March and April of 2016, Al-Jazeera English posted several virtual tours of Islamic holy sites in Jerusalem onto Facebook. The compilation, titled “Inside al-Aqsa: A 360 degree walking tour of al-Aqsa on a Friday,” used two video recording systems to

⁶ Tara McPherson, “Why are the digital humanities so white? or Thinking the histories of race and computation” in *Race After the Internet*, eds. Lisa Nakamura and Peter Chow-White (Routledge, 2011).

⁷ Herbert Marcuse, "Social Implications of Technology." *The Essential Frankfurt School Reader*, ed. Andrew Arato. (Continuum Publishers, 1978), 138-162.

film the 35-acre al-Aqsa compound.⁸ One ultra high-resolution video was filmed with six GoPro cameras mounted together to capture all 360 degrees around the viewing point. Three additional videos filmed with Ricoh handheld cameras in 1080p tour al-Qibli Mosque and the Dome of the Rock. The AJE compilation provides access to a live-action video from the perspective of the camera that films a full 360 degrees around its center-point. The Facebook platform for these videos allows a user to click and scroll to choose which angle to view. Simply put, the 360-degree videos are only different from other videos in that they accommodate a wider field of view and allow the user to navigate within that view.



Figure 3: GoPro ultraHD 4k Screen Capture of al-Aqsa Compound (AJE)

⁸ A note on terminology—the location filmed for the Al-Jazeera videos is Haram al-Sharif or Temple Mount, a compound which houses al-Qibli mosque and the Dome of the Rock. Al-Qibli mosque is also colloquially called al-Aqsa mosque. The entire compound is also often referred to as al-Aqsa. For continuity, this essay will refer to the entire compound as al-Aqsa, and al-Qibli mosque and the Dome of the Rock as structures within this compound.

AJE's 360-degree videos of al-Haram al-Sharif can be viewed on a desktop computer or on a mobile device. The desktop versions of the virtual tour require the user to click and scroll upwards, downwards, and to the side with a mouse. The mobile videos allow for the user to swipe horizontally and vertically to orient the viewpoint, but the user can also navigate by panning the device around their body. The narrator in the seven-minute GoPro video speaks in British English, directing the viewer and providing historical context to various sites around the al-Aqsa compound, such as the Dome of the Rock, al-Qibli mosque, ablution fountains, and school buildings. The Ricoh videos have no voice over narration, lasting only a few minutes each and focusing on the interior of al-Qibli mosque and around the Dome of the Rock. There is some overlap in the sites covered between the 4k and Ricoh videos, but the different engagements required from each video mitigate the repetition between clips.

In the analysis of the AJE videos that follows, I close read camera shots, audio, and editing techniques in frame analyses and AJE marketing to think through the representation work the AJE videos are doing. Furthermore, I employ close reading to understand technology not just as a medium for communication, but as Lisa Nakamura argues, "more than just a framing device; interfaces function as a viewing apparatus, and in many cases they create the conditions for viewing."⁹ Therefore, my analysis does not take new media as mundane and transparent, but as producing logics of viewing. I take into account viewers' embodied and racialized experience of looking to accurately analyze virtual environments that claim to be primarily experiential rather than simply visual in nature. My analysis foregrounds my experience as a viewer to emphasize the

⁹ Lisa Nakamura, *Digitizing Race: Visual Cultures of the Internet* (2008), 29.

partial nature of viewpoint (and therefore gesture to the possibility of decentering vision as the primary avenue of experience), and to open up a space for varying encounters and therefore meanings related both to the central objects and to the practice of viewing itself.

I first came across the compilation on my Facebook News Feed when AJE posted the videos in March 2016. When viewed on a laptop, there is sense of almost being carried by the cameraperson in the Ricoh videos that cover the exterior and interior of the Dome of the Rock and inside al-Qibli mosque. My body merges with the raised arm of the videographer; I can see people looking at me as my position dissolves into that of the camera. And I have partial view of the Dome of the Rock and other buildings as if I am looking up at the structure myself but without the affordances of peripheral vision. The Ricoh videos are shaky and in a lower resolution, following the videographers' movements around the compound. Sometimes the filmmakers would interact with people around them, for example chiding some raucous youngsters, "ya shabaab, shabaab!" Nostalgia and yearning tugs at me, as I am taken back to childhood Friday afternoon visits to the local mosque with my father. However, a disconnect remains as the vantage point of the video is a little higher than my in-real-life perspective. Also, a rupture of identification occurs when I navigate sideways to see the uncannily rendered image of the filmer's hand holding up nothingness, as the camera that cannot capture its own presence. The moments where the video fails to account for the particularities of my body or when the camera reveals itself are jarring interruptions to my engagement with the videos. These interruptions gesture to the limits of technology in suspending embodiment for objective vision and experience.



Figure 4: Ricoh 1080p Screen Capture of al-Qibli Mosque (AJE)

In the superHD 4k GoPro videos, I am not being transported by the cameraperson. Rather, the video fades to different scenes that I can navigate in. The shots are wide and beautiful, with full views of buildings and landscapes. The bright blue sky of Jerusalem is dotted with a few clouds. White-washed stone of al-Aqsa compound contrasts brightly. The floor of the compound gleams spotless. A few children run through the arches and in front of domed buildings. Lush trees line the background of shots and in the distance the viewer can make out the traditional stone homes of East Jerusalem. If I scroll so I am facing directly below the camera, I see the black spot of the camera mount's base, which the editors have pasted an Al Jazeera logo over. The background audio remains unmuted, though mixed as to not interfere with the voice-over. I can hear the wind, children playing, worshippers socializing. The noises around me in-real-life similarly are in the background of my perception; I can vaguely hear the sultry vocalizations of coffee shop music that reminds me of my seated body in a Washington D.C. café even as my

attention is fixed on the narrator’s description of a minaret overlooking the Wailing Wall. The 13.3 inch Macbook Air screen allows me to fix much of my vision onto the scene of al-Haram al-Sharif before me. However, using a Mac tracking pad to orient myself resulted in accidentally skipping forward in the video, exiting from the video, navigating a page backwards or forwards, or pausing the video. Adjusting my vantage point is also interruptive of my viewing experience, and I had to rewind the video several times to orient towards all the sites the narrator was pointing out.



Figure 5: superHD Screen Capture of Dome of the Rock (AJE)

Watching the videos on Facebook mobile is an entirely different experience. The risk of viewing these videos incorrectly is high. Without the Facebook application, I can use a browser to access the compilation, but am led to a split-screen version that simultaneously shows me three unnavigable 120-degree frames rather than a single 360-degree scene. The only way to view the video “properly” on mobile is to encounter the video on my news feed (in March 2016 as the news feed is time-sensitive) or to access it under Facebook’s “saved” feature. Once the videos are properly accessed, I am required

to reorient my body when using Facebook's 360-degree video technology on a phone. Panning the device upwards, downwards, left, right, I feel as though I am looking through a mobile pinhole with partial view of the landmarks before me as again my peripheral vision is limited. The first time I viewed the compilation on my mobile device, I had forgotten that I could swipe on the phone to orient myself as well as pan in various directions. As a result, I both stood and sat as I twisted around to view the scenes before me, struggling to have my body conform to the requirements of the technology. I also made sure to lock the orientation of my phone screen so my display would not be switching between landscape and portrait mode. Using my mobile phone, I found myself noticing more details of buildings in the lower quality Ricoh videos like the intricacies of calligraphy on the exterior of the Dome of the Rock. Navigation was a smoother experience in the mobile versions so my attention was not taken up by fumbling with the Mac tracking pad, which allowed less of my attention to be focused on the clunkiness of a technology marketed as seamless. Additionally, because my perspective aligned with that of the videographer, the experience of viewing the Ricoh videos mimicked what I imagined my movement would be like if I were actually physically in the space of al-Haram al-Sharif, shaking with each step rather than fixed and panning smoothly. I noticed the mobile video's interpellation of my body made the process more involved. For example, if I raise my iPhone and angle it towards my apartment ceiling I can see the top of the Dome of the Rock as if I stood before it. However, the contrast between viewing the compilation on a four-inch phone screen and a thirteen-inch laptop screen results in vastly different visual fields.

360 degree videos function differently from other virtual tours of al-Aqsa compound. Most are low-quality Youtube videos recorded by tourists walking around the compound. Jerusalem.com offers cartoon-like three-dimensional renderings of al-Aqsa compound that are accompanied by a voice over explanation of various buildings. Viewers can use their cursors to orient their line of sight within the AramcoWorld Magazine archive of still panoramas. These 360-degree still images are also accompanied by a voice-over description. I conducted an email interview with AJE producer Megan O’Toole, who explained that the tours available previously were not what the team had envisioned as a project:

“We initially decided to work on this project after watching violence escalate in the occupied West Bank and East Jerusalem in late 2015. Much of the violence stemmed from the conflict over access to Al-Aqsa Mosque compound.

Considering that there have been attacks on the Aqsa grounds in the past, along with ongoing calls to partition the site, we began discussing *the need to document* it as it currently stands, to ensure there would be a *permanent record* of how Aqsa looked before any potential changes were made, or damage done.” (emphasis added)

The concerns about recording al-Aqsa’s current layout are well founded. The Ibrahimi Mosque in Hebron that has been divided between Muslims and Jews since 1994.¹⁰ Given this precedent, O’Toole’s statement indicates the centrality of preservation when formulating access. Therefore, the compilation mixes genres of experiential marketing

¹⁰ Daniel Estrin, "In Hebron, Israelis And Palestinians Share A Holy Site ... Begrudgingly", *Public Radio International*, 2015, <https://www.pri.org/stories/2015-11-10/hebron-jews-and-palestinians-share-holy-site-begrudgingly>.

and video documentary. For O'Toole, preservation and access exist symbiotically and are aspirational. The compilation aspires to provide access to a site where change across time is centered as a concern alongside restricted access to movement. AJE's compilation archives a particular moment within the history of al-Aqsa, a peaceful day sometime in Spring 2016 to be replayed across media devices again and again. Digital curation and circulation render the compound as historic artifact, belonging to the past, even as the snapshot of 2016 al-Aqsa is theoretically documented as record beyond the moment of digital recording. While a photograph might freeze time within the camera's frame, a 360-degree video allows viewers to *repeat* time. The same picturesque Friday can be viewed again and again (until technological obsolescence). The repetition of this calm afternoon functions as a utopic longing for Palestine to continue to exist in this peaceful moment. However, the threat of conflict looms for the producers and the viewers in the disconnect between knowing the captured moments do not continue indefinitely even and the viewer's capability to replay the videos.

The AJE virtual tour of al-Aqsa interpellates my body differently than panoramic stills or animated renderings of the compound. The 360-degree video as a form functions in a manner opposite to kinetosis or motion-sickness; the viewer's body is at rest, but the aim is for visually perceived movement to mimic the "real" experience of navigating al-Aqsa. AJE, contrastingly, does *not* want its viewers to feel as though they are in the space of al-Aqsa, because being at the compound also entails interrogations and restricted access. Only Muslims are allowed at the mosque within the compound, except during specific visiting times. They are screened by Israeli authorities that often have a less-than-thorough knowledge of Islam. Tourists have reported easily routing around the

Muslim requirement by memorizing a short chapter from the Qur'an or donning a hijab.¹¹ Other forms of restriction target Palestinians specifically. Oftentimes, Palestinian men under age 40 are not allowed in the compound. Access is regularly limited to Palestinian residents of the immediate areas surrounding al-Aqsa known as the Old City.¹² Israeli officials have also banned individual East Jerusalem residents from entering the compound for weeks at a time.¹³ Metal detectors manned by Israeli soldiers have also been installed at entrances and throughout East Jerusalem as of October 2015.¹⁴ Palestinians living in Gaza, the West Bank, and Israel are allowed limited movement through identification documents, checkpoints, Jewish-only roads, blockade, etc. In an additional making-of article posted on the AJE website describes the news site's motivation for the project:

“By virtue of its location in the heart of occupied East Jerusalem, al-Aqsa Mosque compound is not accessible to all who may wish to visit. With this in mind, Al Jazeera decided to create a virtual tour that would allow viewers to explore the compound through a high-definition, online experience.”¹⁵

¹¹ "How We Made Al-Aqsa 360°", *Interactive.Aljazeera.Com*, accessed 6 June 2017, <http://interactive.aljazeera.com/aje/2016/al-aqsa-mosque-jerusalem-360-degrees-tour-4k-video/makingof/index.html>.

¹² "Israel Limits Palestinian Access To Jerusalem Old City", *Aljazeera.Com*, 2015, <http://www.aljazeera.com/news/2015/10/israel-limits-palestinian-access-jerusalem-city-151004052101194.html>.

¹³ Patrick Strickland and Imtiaz Tyab, "Israeli Police, Palestinians Clash At Al-Aqsa Compound", *Aljazeera.Com*, 2015, <http://www.aljazeera.com/news/2015/09/israeli-police-palestinians-clash-al-aqsa-compound-150927132041035.html>.

¹⁴ "Israel Limits Access To Al-Aqsa Compound After Attacks", *Aljazeera.Com*, 2015, <http://www.aljazeera.com/news/2015/10/israel-limits-access-al-aqsa-compound-attacks-151009043215083.html>.

¹⁵ See citation 8

AJE poses the terms “explore,” “high-definition,” and “experience” against the inaccessibility of al-Aqsa. Generally, these terms are used by companies promoting 360-degree video or virtual reality. However, within the context of Israeli occupation, the valences of these terms shift away from naïve and aspirational. Visiting the compound “in real life” would involve the possibility of detention and strip-search at Ben Gurion airport or Allenby Crossing, Israeli Defense Forces raids on worshippers, and settler violence. The AJE compilation, however, circumvents the real by not including these experiences. In this way, the compilation is unlike other 360-degree videos that aim for authenticity.

In these videos of al-Aqsa compound, the space is represented as both navigable and inaccessible. I can move into al-Qibli mosque and around the Dome of the Rock as a digital, disembodied, and unmarked subject, safe from Israeli restriction of movement. I am able to tour the buildings and landscape without interruption. However, because my point of view is fixed as the center-point of the camera, unlike in a virtual environment where I can move through the compound at my own velocity, my access to al-Haram al-Sharif is limited. By virtue of the technology used to film the site, I am reminded of the limits of my digital presence, of my physical distance from the space of al-Aqsa. This distance is largely the reason for my desire to view AJE’s videos besides the novelty of interacting with the software, as I imagine I would not be compelled to view the compilation if I could easily venture to al-Aqsa compound myself. Distance or inaccessibility predicates mediation, defined by Eugene Thacker as “those moments

when one communicates with or connects to that which is, by definition, inaccessible.”¹⁶ The technology works by allowing me to be somewhere I cannot be. AJE’s compilation provides an intimate experience that is co-constituted by the knowledge that one is not actually inside the compound, whether because of distance or Israeli restriction. The videos work against Israel’s differentially disseminated access to movement and space; viewing the compilation only functions as an intimate experience *because* of Israeli occupation. Therefore, al-Haram al-Sharif is simultaneously opened and blocked from me, leaving disconnect and rupture in my identification with the space of the compound.

Witnessing al-Aqsa compound in the vacuum of a single, peaceful Friday also reveals normalizing logics of recognition. My identification with al-Aqsa is in part predicated on my identity as a Muslim. AJE’s videos draw a global Muslim audience by centering a religious site on a holy day (Friday). In doing so, the videos fall within religion-based narratives for Israeli occupation. Al-Aqsa is leveraged as synecdoche for Jerusalem, the West Bank, and Palestine itself; the compound acts as a stand-in for and apex of Israeli apartheid, the site where Palestinian (Muslim) identity is most threatened. The tension between virtual accessibility and geographic inaccessibility, therefore, is centered firstly on Muslim identity and secondly on Palestinian indigeneity in the AJE videos.

The medium attempts to re-cast viewers’ orientation to space within the context of an occupied, sieged, blockaded, and settled Palestine. O’Toole explains that the response to the videos, viewed over a million times, have been “phenomenal,” as Palestinians in diaspora and in the OPT have written in to AJE the producers praising the compilation

¹⁶ Alexander R Galloway, Eugene Thacker and McKenzie Wark, *Excommunication*, 1st ed. (Chicago: The University of Chicago Press, 2014), 81.

for allowing access to a site many Palestinians cannot travel to. At the same time, access to these videos is fraught. Digital consumption is determined by infrastructure, and infrastructure in Palestine is determined by Israeli policy.¹⁷ The development of information and communication technologies (ICT) in the Occupied Palestinian Territories is subject to cyber-colonialism, coined by Helga Tawil-Souri and Miriyam Aouragh to refer to the role of the digital in “reinforc[ing] a world of contact and influence between radically asymmetrical powers.”¹⁸ The territorial fragmentation of post-Oslo Palestine resulted in an infrastructure dependent on Israeli networks. The Palestinian Ministry of Telecommunications and Information Technology (MTIT) argues Israel polices and occupies Palestinian ICT by refusing Palestinian access to frequencies, preventing the installation of infrastructure along the apartheid wall, and regular interruption of radio and television operations.¹⁹ Additionally, the costs of going online for Palestinians is relatively high; in 2010, low bandwidth dial-up access in the West Bank cost \$10-\$20 per month while the average Palestinian wage was an estimated \$120 per month.²⁰ Palestinians living in refugee camps also face financial and infrastructural barriers to reliable Internet access.²¹ Therefore, within the context of colonialism the flow of information from Qatar-based AJE to Palestinians in the OPT and diaspora is interrupted and fraught.

¹⁷ Mohamed Mohamed, “How Israel represses the internet in Palestine,” *Mondoweiss*, 13 December 2017, <https://mondoweiss.net/2017/12/represses-internet-palestine/>

¹⁸ Miriyam Aouragh and Helga Tawil-Souri, "Intifada 3.0? Cyber Colonialism And Palestinian Resistance", *Arab Studies Journal* no. 1 (2014): 112.

¹⁹ See citation 2

²⁰ Muhammad Kamural Kabilan et. al., "The Utilization Of The Internet By Palestinian English Language Teachers", *International Journal Of Education And Development* 6, no. 3 (2010).

²¹ See citation 16

The genre of the AJE videos gestures to a fraught reformulation of access to al-Aqsa compound. The 360-degree videos function alongside other virtual tours such as Popular Science's 360-degree film of Times Square²² or Visit Dubai's 360-degree tour of the city.²³ The subset of 360-degree tour videos within the entertainment genre follows the format of a guided walking tour, with narrators explaining sites and sounds of various locales. These tours bring new media formats to the long history of bourgeois travel. Like colonial travel, virtual travel acts as what James Clifford identifies as cultural comparison, recalling colonial ethnographers' fieldwork studies of native Others.²⁴ For example, below is a section from Facebook's engineering director Maher Saba's announcement of the platform's 360-degree video rollout:

“Our goal at Facebook is to connect you with the people and things that matter, every single day...In the future, imagine watching 360 videos of a friend's vacation to a small village in France or a festival in Brazil — you'll be able to look around and experience it as if you were there... It's early days, but we're excited about the possibilities for 360 video and hope it helps people explore the world in new, immersive ways.”²⁵

Saba's statement indicates to the ways new media formats liberate the genres of bourgeois travel and colonial ethnography by disseminating access to far-away locales.

²² Jason Lederman, "Take A 360-Degree Video Tour Of Times Square", *Popular Science*, 2015, <http://www.popsci.com/take-360-degree-tour-times-square>.

²³ Visit Dubai, *Dubai. Here You Are - Dubai 360 Video*, image, 2016, <https://www.youtube.com/watch?v=MD8U6QV7Pb8>.

²⁴ James Clifford, *Routes: Travel and Translation in the Late Twentieth Century* (1997), 110.

²⁵ Maher Saba, "Introducing 360 Video On Facebook | Facebook Newsroom", *Newsroom.Fb.Com*, 2015, <http://newsroom.fb.com/news/2015/09/introducing-360-video-on-facebook/>.

Experiencing the Other, a luxury of the wealthy, anthropologists, soldiers, and colonial officers, becomes accessible to those without the means to travel. However, new media re-draws and recreates lines of privilege based on access to ICT infrastructure; only those with the ability to stream in high-quality can enjoy the 360-degree videos that give glimpses into French villages and Brazilian festivals. The tension of in/accessibility is disavowed in techno-utopian narratives about new media as seen in Saba's statement.

Saba's statement also gestures to the mythology of liberatory disembodiment supposedly facilitated by new media. The myth finds its force in multiculturalist assimilation models of liberation that gained popularity since the 1990s, temporally correlated to the development of the World Wide Web. While Saba does not explicitly embrace disembodiment, he implies that vision and perspective are technological capabilities that are transferrable, objective; you can experience a friend's trip as if you were there yourself. The perspective of the camera, a version of the videographer's viewpoint, becomes an access-point for the scene. Theoretically, anyone can visit that small village in France or experience a festival in Brazil. However, a disability studies understanding of access centers embodiment and power to illustrate that perspective is always partial, situated, and subjective.

The problematic of *access* also gestures to the limits of new media's claim for immersiveness as the litmus test for identification. For Maher Saba, immersiveness is centered as a category of highly visual absorbtiveness. The state of mental concentration is a determining factor in the authenticity of virtual presence and experience.

Immersiveness is generally used to describe developer intentions and does not have any agreed-upon components. At the same time, the term is deployed as an objective category

evacuated of concerns around embodiment, engagement, and interpellation.

Immersiveness is fraught. Media theorist Kara Keeling thinks through immersiveness as engagement with a medium that requires particular modes of viewing and knowing that users consent to at a bodily level.²⁶ A viewer's interaction with an object is formulated by the way they inhabit their body. In other words, my engagement with these AJE videos, as a second generation Pakistani-American Muslima from the Silicon Valley who owns a smartphone, regularly engages with new media, and probably will never see al-Aqsa in person—will differ greatly than the engagement of a Palestinian refugee in Jordan, a Christian Zionist wheelchair-user in New York, etc. The social meanings of my embodied identities affect how I interact with technology built for unmarked (read: normative) audiences, and my identities and experiences determine how I feel about the videos. The infrastructure of 360-degree videos assumes that I can disengage from my body, that the suspension of disbelief needed to identify with the perspective of the camera is one merely of removing myself from my embodied identities. It assumes that I have access to this seemingly transferrable, disembodied, objective perspective that is the property of normative bodies.

While the genre of the 360-degree videos functions as a techno-utopian gesture to global interconnectedness predicated on disembodiment, the AJE videos do attempt to call attention to embodied identity. Though the videos only briefly mention the lack of access to al-Haram al-Sharif the producers work against, they are paired with the article “Who are the guardians of al-Aqsa.” The piece provides interview material from Palestinians who are prevented from stepping foot on the compound due to Israeli

²⁶ Kara Keeling, *The witch's flight: the cinematic, the Black femme, and the image of common sense*, Durham: Duke University Press, 2007.

restrictions. The juxtaposition between the cold gaze of the camera and the viewer's knowledge that said viewpoint is inaccessible works on two levels: firstly, digital access in the form of global tourism videos functions as a normalizing process for occupation by providing select populations a glimpse into a site that Palestinians cannot access, reproducing the logics of selective accessibility apparent in Israeli colonialism, and secondly, the tension between virtual access and geographical inaccessibility gestures to the process of Palestinian racialization. Simply put, the technical perspective of the camera brings to light that disembodiment is the only way many populations like Palestinians in diaspora can access al-Haram al-Sharif. The compilation turns immersiveness inwards, revealing the contradictions of the concept to illustrate the inaccessibility of both al-Haram al-Sharif and of disembodied, objective, transferrable vision. The serene scene offered in the wide, beautiful shots acts as a present, attainable utopia within the grasp of the viewer. The videos borrow the form of Orientalist panoramic detail that implies rational, universal vision in its alienated, expansive, and elevated perspective.²⁷ This panoramic vision that is only possible virtually alludes to the impossibility of apolitical access to Palestine, laterally gesturing to the Israeli-induced urgency of preserving and disseminating access to al-Aqsa.

Visualizing Palestine

The second set of objects in this inquiry is titled *Udna*, or “we return” in Arabic, a project created through the collaboration of various Palestinian organizations in Israel proper: the Arab Association for Human Rights (HRA), the Association for the Defense of the Rights for Internally Displaced Palestinians in Israel (ADRID), *Baladna*

²⁷ James Clifford and Edward W. Said, "Orientalism.", *History And Theory* 19, no. 2 (1980): 204, doi:10.2307/2504800.

Association for Arab Youth, and Israeli ally group Zochrot. The project addresses the practicalities of the Palestinian right of return, delineated by United Nations General Assembly Resolution 194, adopted in December 1948:

“Refugees wishing to return to their homes and live at peace with their neighbours should be permitted to do so at the earliest practicable date, and that compensation should be paid for the property of those choosing not to return and for loss of or damage to property which, under principles of international law or equity, should be made good by the Governments or authorities responsible.”²⁸

The right of return is a central point of contention between Palestinians and Israel. For example, Israeli and U.S. delegates at the 1991 Madrid Conference demanded the exclusion of all reference to UNR 194 in the proceedings.²⁹ Additionally, Israeli government officials have expressed concern that the right of return poses a of “demographic threat,” an “impossible fantasy” that would allow 11.6 million Palestinians to live in a land occupied by just six million Jewish Israelis, in the words of Benjamin Netanyahu.³⁰ While many debate the feasibility of the right of return, the Udna project members aim to take tangible steps towards the seemingly impossible resolution to Israeli colonialism.

The project began in 2012 and members participated various seminars, including a tour of the ethnically cleansed village Ma'alul and city Tabariyyah (Tiberias).

²⁸ UN General Assembly, 186th Meeting, UN General Assembly Resolution 194, A/RES/194 (III), 1948.

²⁹ Jacob Tovy, "Negotiating The Palestinian Refugees", *The Middle East Quarterly* 10, no. 2 (2003): 39-50.

³⁰ Gideon Alon and Aluf Benn, "Netanyahu: Israel's Arabs Are The Real Demographic Threat", *Haaretz.Com*, 2003, <http://www.haaretz.com/netanyahu-israel-s-arabs-are-the-real-demographic-threat-1.109045>.

Following the tours, the sixty participants developed and workshopped models for returning to the two locations. The organizations also provided oral history training and historical lessons on the Nakba, or 1948 Catastrophe of ethnic cleansing. Then, participants were divided into eight groups with third- and fourth-generation descendants from the destroyed villages of Iqrit, Safuriyya, Mi'ar, Ma'alul, al-Lajjun, al-Birwa, al-Ghabisiyya, and al-Majdal/ Asqalan. The groups worked with generations of internal refugees from each town to create models for return. The projects were presented at a culminating event in an-Nasira (Nazareth) and at the third International Conference on the Return of Palestinian Refugees in al-Shaykh Muwannis (Tel Aviv). The projects and culminating events work towards building an intergenerational community that facilitates the continued struggle for Palestinian return. Haifa-based Baladna director Nadim Nashef explains that

“the combined activities of these villages during the summer of 2013 represent the most significant movement in the struggle for return since the years following the Nakba... the youth’s energy, enthusiasm and innovative approaches, has resulted in a grassroots, youth-led movement unprecedented in the history of activism for the right to return.”³¹

While the project groups focus their efforts on local internally displaced Palestinians, the collaboration of the various organizations involved in Udna facilitate the circulation of Udna initiatives beyond each community. Many of the Udna groups received international attention for their work. In January 2016, independent media non-governmental organization Israel Social TV released several Hebrew-narrated video

³¹ Nadim Nashef, “Palestinian youth assert right of return with direct action” in *Electronic Intifada*, 11 September 2013.

interviews of Udna project members. The al-Ghabisiyya model was featured in Israeli online publication +972 Mag.³² A Haaretz article headlined the al-Lajjun project with the title: “A utopian Arab city in Israel? Turn left at Route 65.”³³ Al Jazeera Arabic published excerpts from the al-Lajjun model to its YouTube channel,³⁴ and its English-language counterpart featured the Udna group from Iqrit.³⁵

The groups used a variety of mediums for their projects. Notably, the Udna Ghabisiyya and Iqrit groups *participated* in return by hosting summer camps in each village, inspiring community members from Kufr Birim to do the same. The Iqrit members moved into the village’s abandoned Roman Catholic Church despite property confiscation and destruction at the hands of the Israel Lands Authority. Of the Udna projects, three used three-dimensional virtual modeling to reimagine the right of return as reality. Udna al-Ghabisiyya and al-Lajjun are presented in two separate videos: the first features the three-dimensional models of each respective village, and another presents oral history accounts from elders and reflections from second- and third-generation refugees. This section of the essay centers the work of Udna Mi’ar, the only group whose oral history research, interview footage of village descendants, and visualizations of Mi’ar are presented in one video.

³² Social TV, "WATCH: 3D Modeling Helps Visualize Palestinian Right Of Return | +972 Magazine", *972Mag.Com*, 2016, <https://972mag.com/watch-3d-modeling-helps-visualize-palestinian-right-of-return/115744/>.

³³ Esther Zandberg, "A Utopian Arab City In Israel? Turn Left At Route 65", *Haaretz.Com*, 2013, <http://www.haaretz.com/israel-news/premium-1.550716>.

³⁴ Al Jazeera Arabic, *A three-dimensional design reconstructs the village of Al-Lajjoun in Haifa*, video, 2015, <https://www.youtube.com/watch?v=YNS-MMAhHS4>.

³⁵ Jonathan Cook, "The Return To Iqrit", *Aljazeera.Com*, 2013, <http://www.aljazeera.com/indepth/features/2013/06/20136811252772542.html>.

While I present arguments in this section that could feature other Udna initiatives, I find the synthesis of elements in Udna Mi'ar's work as most demonstrative of Palestinian activists' use of animation software and cross-genre media production. Oral history and digital animation are paired seamlessly in a project of decolonial futurity, defined by Noenoe Silva and Noelani Goodyear-Ka'ōpua as an orientation that de-centers “formal processes for decolonization under international law but instead aims higher to imagine and enact transformation beyond states and capitalism.”³⁶ The genres that Udna Mi'ar's video crosses prompt a different kind of analysis. Therefore, the content that follows contrasts sharply from my personal narrative in previous sections. The form and genre of Udna Mi'ar's video requires a different mode of analysis. Because the videos are not aiming for immersiveness like 360-videos do, the centrality of my experience falls away from importance. The different methods required to analyze Udna Mi'ar and AJE's videos indicate the need for an attentiveness to genre. Though of course my positionality shapes the way I approach Udna's videos, my experience is not the primary optic for understanding the force of Udna's work.

The Udna Mi'ar video begins with a young woman vocalizing mournfully as different scenes are cut to: a lone tree in a field of brown shrubbery, large trees planted in the dirt, stone rubble from a building amongst spiky desert plants. The camera passes over a plot of land with rubble and dead plants covering the earth to an elder wearing a suit and ghutra sitting on a stone. The music pauses and the man introduces himself as Ahmed Hussein Abdul Hadi Shahadeh, born in 1933 and living in Mi'ar until the Nakba.

³⁶ Noelani Goodyear-Ka'ōpua and Noenoe Silva, “Decolonial Futures,” syllabus, 2016, University of Hawai'i Manoa, <http://www.politicalscience.hawaii.edu/courses/syllabi/fall16/pols777-goodyear-silva-fall16.pdf>

Shahadeh and another interviewee, poet Yousef Saeda, recount the village's ethnic cleansing in 1948 as a black-and-white photo collage accompanies the narration; Israeli brigades massacred forty residents and destroyed many homes, and then again a month later when Israeli troops expelled the rest of the villagers.

Produced by Baladna, the video features Arabic-language interview footage and shots of the land where the village once stood.³⁷ As the history of Mi'ar is told, the landscape is superimposed with digitally rendered buildings. "Here was the mosque, and there was a big yard in front of the mosque. Over here was the door," Shahadeh explains to a young Udna Mi'ar member, Shadi Akri. He gestures to rubble on the ground as the adhan, Islamic call to prayer, plays over his recollections. The camera then faces away from the two to the clear blue sky and brown and green desert shrubbery. The adhan continues as bright green bushes, stairs, grey stone walls, and a minaret materialize. Trees grow from saplings to lush verdure. Birds soar in the distance. The accompanying narration seems to contextualize the digital rendering as a representation of Mi'ar's past. However, the gradual fading-in of the building and the shrubbery's accelerated growth implies that the animation displays a time-lapse of Mi'ar's *future* construction. Rather than featuring a time lapse of the destruction of Mi'ar, the superimposition of buildings blurs the timeline of Mi'ar's existence. The virtual rendering allows for the Mi'ar mosque to be represented past its material life, but also imagines a tangible future that circumvents the material and political limitations of Palestinians seeking return. The structure appears digitally despite Israeli blockade and occupation, despite Palestinian unemployment and poverty. The digitally rendered buildings provide testimony to Mi'ar's Palestinian past *and its*

³⁷ Baladna, *Udna- The Village Mi'ar*, video, 2013, https://www.youtube.com/watch?v=_MbZu1Oiwps.

Palestinian future.



Figure 6: Digitally Rendered Mosque in Mi'ar . (Udna).

However, the Udna members preface the projects as not utopic, wishful, or acts of mourning. The genre of the Udna Mi'ar video lends itself to this claim. The digital renderings mimic the genre of construction project proposals. Unlike other media such as watercolor paintings or sketch drawings, the digital renderings shy away from artistic imaginings to insist on the practicality of the group's plan for return. The proposal genre asserts that decolonial futurity is not just a wish, that decolonization is not a metaphor.³⁸ "Hopefully we will return," participant Najwan Taha's wistful statement is paired against Akri's pitch: "We expect the number of inhabitants to be about nine to ten thousand while the village numbered a thousand in 1948. In my opinion this village will be unique because of its great location with its view over the coastal area." The video juxtaposes the melancholy of collective memory that is inscribed into the space of Mi'ar in oral history

³⁸ Eve Tuck and K. Wayne Yang, "Decolonization is not a metaphor" in *Decolonization: Indigeneity, Education, and Society* 1:1 (2012).

testimony against a sort of construction bid for Mi'ar. The Udna Mi'ar group insists on the importance of memory to the practicalities of return.

The multi-genre video practices what Faranak Miraftab calls insurgent planning: a communal practice that elides the neutralizing forces of inclusion by centering historicized consciousness as anti-colonial praxis.³⁹ Rather than advocating for equal inclusion of Palestinians in Israeli nation-building, Udna Mi'ar makes the case for centering memory and situatedness in planning practices. Like the al-Ghabisiyya and al-Lajjun simulations, the structures in virtual Mi'ar feature neo-traditional architecture, blending the aesthetics of 1948 with the sleekness of modern architecture “to soften the shock of returning to a completely foreign place.”⁴⁰ The school buildings virtually reconstructed by Udna Mi'ar feature ivy-covered glass-paneled walls, and the residences feature brightly colored multi-story units with steel staircases and balconies. The architecture becomes what Eyal Weizman defines as forensic architecture, “a mode of public address, a way of articulating political claims” that is attentive to aesthetics as the way things relate to other things.⁴¹ The buildings do not mimic Israeli settlement high rises or Spanish-style suburban single-family homes with red-thatched roofs that sit atop hills. For M'iar refugees modern construction does not mean development in the image of colonial (post-)modernity. Rather, the architectural details in the Mi'ar videos make the claim of Palestinian futurity that is attentive to the village's history. As Dipesh Chakrabarty argues, “The peasant as citizen keeps looking like a relic of another time, although we know that he belongs squarely to the same present as that of the modern

³⁹ Faranak Miraftab, "Insurgent Planning: Situating Radical Planning In The Global South", *Planning Theory* 8, no. 1 (2009): 32-50, doi:10.1177/1473095208099297.

⁴⁰ See citation 32

⁴¹ Eyal Weizman, *Forensis: The Architecture of Public Truth* (2014), 19.

citizen. The challenge is to reconceptualize the present...⁴² Similarly, the temporality of the refugee is characterized by segmented, repetitive, scattered, and continuous waiting for return. The circularity of waiting contrasts against development and planning's narrative of teleology, of striving towards and achieving modernity. As Eric Tang argues, the temporality of the refugee contrasts with the liberal expectation of an event, for Tang's interlocutor, the crossing of a border, as a moment of liberation.⁴³ Rather, the movement and temporality of the refugee is mundane and repetitive, lacking a transfigurative moment that understands trauma as teleological, as leading to the moment of liberation that ends refugee time's circularity.

Instead, the Udna Mi'ar members display the present, the current landscape of a destroyed Mi'ar and the enduringness of trauma from 1948, as inseparable from the past narrated in Shahdeh's oral history testimony. The past and present are then displayed alongside the future, as secondary schools and parks are digitally rendered onto today's landscape with narratives voiced over the scene. The trauma specific to Mi'ar's geography is memorialized in the digitally rendered architecture through public art and architecture, such as a sculpture of a key in the city square that represents the right of return. Baladna director Nadim Nashef explains the centrality of memory to Udna's efforts: "Far from forgetting their roots and historical injustices, the latest generation of Palestinians inside Israel are [sic] showing their dedication to their right of return."⁴⁴The

⁴² Dipesh Chakrabarty, *Provincializing Europe* (Princeton, N. J.: Princeton University Press, 2001), 249.

⁴³ Eric Tang, *Unsettled: Cambodian Refugees in the NYC Hyperghetto* (Temple University Press, 2015), 50.

⁴⁴ See citation 31

future of Palestine is inextricable from its past, as evidenced by the oral history used to plan a vision of Mi'ar's future.

Just as the Udna group members provide testimony in the forms of oral history and urban planning, the buildings imagined as part of Mi'ar's future provide testimony. Weizman explains that objects “articulat[e] public and political claims for justice that are grounded in the material, built-up world.” This object-oriented testimony is a form of historical method, “asking what is necessary to know and show in order to tell history today.” The digitally-rendered structures also provide testimony, accompanying the Palestinian elders that relay their stories. The stone debris scattered through the village testifies to Palestinian rootedness and Israeli violence. The neo-orientalist building aesthetics reference Palestinian indigeneity but relate to the environment that has been changed through settler-colonialism.

If we understand access as intimately tied to political power and infrastructure, we can see that a building can facilitate empowerment just as aesthetics and built structures can facilitate disempowerment and inaccessibility. These planned future Palestinian homes are built in the image of traditional Palestinian homes, demonstrating that return is not just about having access to land. Rather, return implies access to Palestinian identity and history. This access comes in the forms of proximity to ancestral land as well as expression of Palestinian indigenous identity. Therefore, the aesthetics of these planned buildings provide a way to relate to and access Palestinian identity across temporalities.

However, the future imagined in the Udna Mi'ar video is not determined by Israeli systemic disenfranchisement of Palestinian refugees.⁴⁵ The video does not frame waiting for return as a utopian longing, a melancholic mourning, or an inactive state of compliancy. Rather, the precarity and indeterminacy of waiting is partially circumvented through the digital animation. The medium is leveraged for community building across multiple generations of displaced Mi'ar Palestinians that argue for memory and identity persisting beyond the expelled generation. The imaginings of Udna Mi'ar reflect the politics of a subset of Mi'ar refugees, given that the group is comprised of internally displaced Palestinians. Therefore, the virtual rendering of *one* imagined future acts as a continuation and catalyst of additional conversation regarding return. As sovereignty continues to be withheld and deferred from Palestinians, the Mi'ar video counteracts hopelessness through an almost-tangible rendering of Mi'ar's future.

The larger Udna project's segmentation in imagining return is notable in that refugees did not come together to reconceptualize an Arab Palestine as a whole. The group's separate projects do not aim to normalize the segmenting force of Israeli occupation. Rather, the small groups specific to each destroyed village indicate attentiveness to the significance of space that those who decry the right of return dismiss. Orientalist and Zionist thought flattens the significance of space.⁴⁶ "A land without a people for a people without a land," the discourse of Zionist colonialism empties Palestine of significance to its native peoples, prefacing arguments that Palestinians can

⁴⁵ See the work of Maria Tumarkin, *Traumascapes: The Power and Fate of Places Transformed by Tragedy* (2005) for an extended inquiry in architecture, memory, and trauma.

⁴⁶ Derek Gregory, "Imaginative Geographies", *Progress In Human Geography* 19, no. 4 (1995): 447-485, doi:10.1177/030913259501900402.

live in the Arab lands of Jordan, Lebanon, Syria, etc. “I am an Arab Palestinian from Mi’ar, the land where my ancestors are buried,” Shahadeh narrates over shots of Mi’ar second- and third-generation refugees, “My slogan: za’tar spice, bread, and oil. On my land it is farmed.”

The specificity of place in each Udna video recalls Palestinian scholar Edward Said’s call for a mode of representation to reorder the Zionist imaginary. The partitioning of Palestinian lands is not undone but reoriented, “deploy[ing] hybrid, broken, fragmentary forms to reinscribe a Palestinian presence on the map.”⁴⁷ The practice of mapping segmented Palestine is a communal one. While the AJE videos are meant to be viewed individually and therefore reassert infrastructural development of ICT as predicated access, the various screening events of Udna videos (in each village, al-Nasira, and Shaykh al-Muwannis as mentioned before) formulate experiencing and accessing Palestine as a collective and community-building practice. Individualizing access imagines proliferation as the antidote to differential access. However, communalizing access and experience allows for specificity to be reasserted. The Mi’ar video, while available on various platforms for a potentially wide audience, is primarily a video for the community of Mi’ar. The video serves to preserve memory and act as a tool in creating a realizable future, as it is used to foment collective organizing for return as a practical project.

The multimedia, mixed-methods projects of Udna include Mi’ar’s community video screenings of oral history accounts, Iqrit’s illegal dwelling in the last standing building of the town, and al-Lajjun’s musical and poetry performances. Together, Udna

⁴⁷ Ibid

projects envision decolonial fugitive future but also a pragmatic, grassroots, immediate plan to achieve that future. Settler-colonialism is framed as a mere roadblock rather than an insurmountable obstacle to Palestinian sovereignty. This is not to say the Udná projects disregard the reality of Israeli colonialism. Rather, the rhetorical immensity of occupation is bypassed in these representations and initiatives. Destroyed Palestinian towns are reframed as accessible. In the animated renderings of Mi'ar, walls become surmountable. In the return to Iqrit, a depopulated village homes local youth. Return to Palestine is both a virtual, imagined future and a planned, substantive present.

Post Spatial, Post Colonial

The title of this essay “Post Spatial, Post Colonial: Accessing Palestine in the Digital” draws from liberatory rhetoric that paints digital networks as accelerating the obsolescence of borders. Fred Turner explains that in light of the U.S. 1980s culture wars, New Communalists popularized a political consciousness that rejected direct action and instead looked to techno-utopian solutions to the decade’s havoc.⁴⁸ The vocabulary developed by this cultural formation invested in collaboration, characterizing people as bits of data networked in a Global Village. However, as Internet access is predicated on infrastructure, socio-economic divides along racial, ethnic, and national lines are reified through the very technology imagined to undo these divides. Additionally, while technologies erode the sovereignty of nation-states, such as in the domino-like effect of protests during the Arab Spring, modes of control are developed to reassert the boundaries of the nation. The network has been redeployed to combat the very threats it poses to the sovereignty of the nation-state, as exemplified by the military doctrine of

⁴⁸ Fred Turner, *From Counterculture to Cyberculture: Stewart Brand, the Whole Earth Network, and the Rise of Digital Utopianism* (2006)

“network-centric warfare.” As Turner writes, the Internet’s roots in U.S.-military developed ARPANET signal the salience of nation, borders, and space that the Global Village disavows.

The essay title also riffs on the forgetfulness practiced by imperialist nations in the postwar era to redirect blame for poverty in the Global South away from a history of colonization. Postcolonial studies scholars assert that the liberation of occupied nations does not mean the end of colonialism but the development of new iterations of subjugation.

Therefore, I bring together the myths of post-spatiality and post-coloniality to think through the affordances and limitations of born digital activist representations of Palestine. Centering new media in this theorization furthers postcolonial studies’ assertion of the continued importance of space even as capitalist alienation present in techno-utopianism occludes and disaggregates materiality from virtuality. The force of AJE and Udna’s videos is not the virtual nature of access, nor is it the discarding of geography’s importance. Rather, the virtual-- already dependent on the material-- calls for a reimagining of the material. These videos reemphasize the specificity of space, and indicate the ways new media facilitates understandings of space through in/access.

In these new media projects, the virtual is used to gesture to an imagined Palestine that territorial fragmentation occludes. My reading of AJE and Udna advocates not for disembodiment and a lack of fixity, but rather the centrality of space to both digital networks and to fugitive futurity. As Christian Sandvig argues, “The internet was celebrated by referring to the possibility of placelessness... The state of indigeneity, in

contrast, is a continual assertion of place and an affirmation of identity.”⁴⁹ The concept of *access* indicates mediation is the central feature of dispossession. Both new media cultures and settler-colonialism aim to circumvent spatial specificity. While leveraging the language of neutralizing difference for the aim of inclusion, both new media and settler-colonialism re-frame universal access as liberatory. I follow Glenn Coulthard and Leanne Simpson’s theorization of settler-colonialism as “a structure of domination that is partly predicated on the ongoing dispossession of Indigenous peoples’ lands and the forms of political authority and jurisdiction that govern our relationship to these lands.” The intervention of an alien authority structures relationship between native peoples and the land. Israeli authority structures the relationship between Palestinians and Jerusalem and the 1948 destroyed villages. Drawing attention to this mediation hence draws attention to geographical inaccessibility, and therefore the continued importance of space to decolonial imaginaries. In thinking of dispossession and mediation in conversation with one another, we can highlight the concepts of access and loss as a through-line. The loss experienced because of Israeli colonialism gestures to the possibility of access. This access is not the universalizing access of popular computing culture, but access as a politics of non-normalizing integration of difference, a politics of anticolonial memory, and a politics of future-oriented decolonial practices.

In sum, this article centers the content and form of new media projects that reimagine access in order to envision decolonial futurity. The central tension identified for these digital projects is a) the projects’ advocacy of geographic specificity as central to Palestinian sovereignty contrasted with b) digital culture’s aim of surpassing space for

⁴⁹ Christian Sandvig, "Connection At Ewiiapaayp Mountain: Indigenous Internet Infrastructure", in *Race After The Internet*, 1st ed. (Routledge, 2012), 178.

undifferentiated access in a networked Global Village even as information communication technologies rely on the transformation of space through towers, cables, etc. This problematic of in/accessibility highlights the importance of geography, embodiment, situatedness, and memory to Palestinian futures.

Full links for objects:

<https://interactive.aljazeera.com/aje/2016/al-aqsa-mosque-jerusalem-360-degrees-tour-4k-video/al-aqsa-360-friday-tour-jerusalem-mosque.html>

https://www.youtube.com/watch?v=_MbZu1Oiwps

CHAPTER III

Automating Intifada: Digital Games and Palestinian Resistance

Abstract

This chapter centers two digital games that represent Palestine and Palestinian characters: iPhone and Android mobile game *Liyla and the Shadows of War* (2016) and desktop game *Peacemaker: Israeli Palestinian Conflict* (2005). Though developed over a decade apart, both games leverage limitations on player control of characters and occluded game rules to communicate the asymmetry of power between Palestinians and Israelis. Along with limitations on players, the games use visual aesthetics and narrative to gesture to alternative formulations of Palestinian sovereignty.

New Media Formats and Palestine

The previous chapter centered al-Jazeera's video compilation that tours al-Aqsa



Figure 7: *Al-Aqsa Mosque Guard* (Burj al Luqluq Social Center Society)

compound in Jerusalem, a project aimed to preserve and disseminate access to the Islamic holy site.

Similarly, in February 2019, Palestinian gamers from Burj al-Luqluq Social Center Society in the Old City released the mobile

application *al-Aqsa Mosque Guard* for iPhone Operating System (iOS) and Android.¹ The educational game features a young Palestinian man in a keffiyeh that players guide around a digital representation of al-Aqsa compound. A user leads the character to flagged areas and dialogue boxes appear that present questions about the Palestinian Islamic history of the site. Like the 360-degree tours, this digital game aims to preserve a particular history of al-Aqsa compound and allow Palestinians and other Arab-speaking users to access the site.

The format of a digital game cannot be collapsed with a video tour. The user is interpellated in different ways in each medium. Alarmist rhetoric around violence in video games indicates the genre-specific embodiment and participation required of game players. Particularly, the participatory nature of games differs from cinema's more passive interpellation. Games can be understood as what Marshall McLuhan identifies as a cold medium, "high in participation or completion by the audience," and cinema as a hot medium, low in participation, high definition, and filled with data.² McLuhan describes hot mediums as mimicking hypnosis, and cold mediums requiring hallucination. In other words, cold media like video games require a participatory engagement. The player actively takes part in the hallucinatory game world, performing actions within the parameters game developers have created.

Because videos and video games interpellate users differently, this chapter builds on the last to analyze digital games that feature Palestine and Palestinian characters: *Liyla*

¹ Melhem, Ahmad. "How This Online App Gives Gamers Keys to Al-Aqsa." *Al Monitor*. March 21, 2019. Accessed June 13, 2019. <https://www.al-monitor.com/pulse/originals/2019/03/palestinian-team-develops-game-app-on-al-aqsa.html>.

² McLuhan, Marshall. *Understanding Media*. McGraw-Hill, 1964. Pg. 23

and the Shadows of War, a mobile game developed in 2016 by Nablus-based Rasheed Abueideh, and desktop game *Peacemaker: Israeli Palestinian Conflict*, produced at Carnegie Mellon University in 2005. The essay works to understand the affordances and limitations of games as a platform for imagining Palestinian resistance. Games allow for experimentation with rules and logics, agency and choice, narrative and causality in ways that formats like cinema and video are less equipped to.

While requiring player participation, digital games occlude complex rules and logics behind simulation. The games I center in this chapter disturb the perceived simplicity of digital games through a disconnect between player choice and in-game causality. The black box of the game logics is briefly apparent to the user when actions do not yield expected results. I argue that the breakdown of control within a game makes apparent both the logics of gameplay *and* the logics of settler-colonialism.³ These unexpected moments in game narratives allow the player to imagine both alternative gameplay and an alternative Palestinian future. Therefore, games that disrupt player expectations of cause and effect, of player agency gesture to a formulation of settler

³ Patrick Crogan provides historicization of the meaningful relationship between games and “the real.” In an analysis of commercial real-time networked games of the 1990s, Crogan identifies three foundational events within the development of digital games as formulating the relationship between war and simulation: Norbert Wiener's work on anti-aircraft weapons systems in the 1940s, the U.S. Air Force's Semi-Automated Ground Environment (SAGE) Project in the 1950s and 60s that virtualized real space in real-time, and the SIMNET networked simulation training system developed for the U.S. military in the 1980s. The convergence of war and gaming illustrates “simulation as a material, mnemotechnical process.” SIMNET and SAGE, for example, made available to the user derivative experiences that close off the possibility of varying interpretations and orient the user as anticipating constant external threats to security. Programs used to train military personnel simulate experiences so that the user can troubleshoot and translate in-game reactions to combat. While the games in this chapter are not mediums to train users for combat, these selected games do perform pedagogical functions in creating game worlds that must be navigated through particular logics.

colonialism not as an inevitable and impermeable process, but as a set of logics and rules that can be modified or subverted.

There are a number of games that are set in Palestine or represent Palestinians. The contemporary proliferation of digital games regarding Palestine can be credited to the development model facilitated through Apple iTunes or Google Play that encourages individuals to create games and distribute them through these platforms in addition to traditional corporate-developed games. Mobile games regarding Palestine include: *Gaza Man*, *Bomb Gaza*, *Gaza Assault: Code Red*, *Freedom Flotilla*, *Palestine Freedom*, and *Border Security Wall Construction*. There are also many desktop games that predate their mobile counterparts. For example, *Conflict: Middle East Political Simulator* was released in 1990 and featured an imagined assassination of the Israeli Prime Minister leading to unrest throughout the Middle East. *Jane's IAF: Israeli Air Force* (1998), *Under Siege* (2005), and *The Liberation of Palestine* (2014) are other notable desktop games that depict Palestinians and Palestine. Avalon Hill Game Company's 1997 *The Arab-Israeli Wars* and Simulation Publications, Inc. *Sinai* (1973) are hex-and-counter war simulation board games that represent historic Palestine. For this chapter, I researched and played about a half dozen digital games that represent Palestine. I limited games explored by focusing on narratives and characters that allowed the player to play as an Israeli and Palestinian or just a Palestinian character. The number of games I was able to play through was limited by the life cycle of many indie games. For example, *Under Siege* is unavailable for download at the time of writing this chapter even though the game was

popular in Palestine and across Arabic-speaking nations.⁴ Unfortunately, the same platforms and technologies that facilitate indie game development also create issues of ephemerality. I was able to read news articles, scholarly analyses, and gameplay guides for several games that cannot be downloaded anymore, but because I was unable to play these games I have refrained from centering them in this analysis.

Another issue I encountered writing this chapter was whether or not to conform to the standards of game studies scholarly work. In the end, I felt the objects required a cross-disciplinary analytic. While games are the center of this chapter, the method of this research differs from traditional game studies work because I am writing on game mechanics to make an intervention regarding ideology. Therefore, this chapter uses close readings, close play, and visual analysis within a theoretical framework that includes performance studies, critical cinema studies, and digital studies. The term “play” features across these fields. Edmond Chang explains critical engagement with video games and close playing as:

“Close playing, like close reading, requires careful and critical attention to how the game is played (or not played), to what kind of game it is, to what the game looks like or sounds like, to what the game world is like, to what choices are offered (or not offered) to the player, to what the goals of the game are, to how the game interacts with and addresses the player, to how the game fits into the real world, and so on...Close playing reveals the ways these elements, these spaces

⁴ Aouragh, Miriyam. *Palestine Online: Transnationalism, the Internet and the Construction of Identity*. London: Tauris Academic Studies. (2011).

are also connected and dependent on the logics, narratives, and histories of the real world.”⁵

An attention to gameworld logics and play is what differs my analysis of video games from a reading of film or video. Following Alexander Galloway, I read in-game action and play as a text that is subject to interpretation and analysis: “Play is a symbolic action for larger issues in culture. It is the expression of structure...It is an aesthetic, enacted vehicle for a ‘powerful rendering of life.’”⁶ Therefore, the arguments presented in this chapter rely on analyses of visual styles, genre, and play rather than industry reports, reviews, and circulation.

Challenging Player Expectations

In 2016, Rasheed Abueideh of Nablus developed *Liyla and the Shadows of War* as a response to violence in the Gaza Strip. *Liyla* is a narrative-based mobile game that follows the style of role-playing games, with the player-controlled character completing a quest. Launching the game on a mobile device causes a disclaimer to appear that this game is based on actual events, followed by the suggestion that “for best experience play this game in a dark room with headphones on.” The only sounds in the game are ambient: crickets, grunts when the character jumps, rockets, and gunfire. All dialogue appears in text boxes. The majority of the game is silent, but the players are prompted to immerse themselves in this silence. The screen fades to a greyscale landscape-oriented scene with two-dimensional objects and buildings in the background. The shadowy figure of the main character stands miniscule in the foreground, as much of the screen space is used to

⁵ Edmond Y Chang, “Gaming as Writing, or, World of Warcraft as World of Wordcraft” in *Community College Journal of Research and Practice* (2008)

⁶ Alexander Galloway, *Gaming: Essays on Algorithmic Culture* (University of Minnesota Press, 2006), 16.



Figure 8: *Liyla and the Shadows of War* obstacle course

display the scene. Players guide the character through each scene by holding down simple forwards, backwards, and jump buttons that appear when deemed necessary for the scene. The characters' movements are jerky, requiring the player to practice controlling the character's jumping and running to correctly time actions.

The first part of the game comprises of leading your character to a house where his wife and child Liyla are. The purpose of this first sequence, made up of four full-screen scenes that your character moves through, is not immediately apparent. The player leads the character (forward to be referred to as Abu Liyla, or father of Liyla) through



Figure 9: *Liyla and the Shadows of War* white phosphorus

obstacles like rocket fire and showers of bullets without knowing what lies off screen or in the next scene. There are no instructions on how to move through a scene. Therefore, the player must use trial and error to move through obstacles. Occasionally, an internal dialogue box appears with some guidance or explanation, such as “I should go in the other direction.” If the player fails to guide characters to safety, the figures die and the scene begins again.

The opening scene shows a rocket destroying a building. The player leads the character away from debris to a path with two obstacles. First, another rocket destroys part of the multi-level path forward and leaves the character stranded if the player does not move the character quickly enough. Second, the character must push a dumpster in front of him to protect himself from encroaching gunfire. The character then enters his home and guides his wife and daughter outside. Just then, a rocket blast causes debris to drop between the characters, separating the husband from wife and child. He urges his wife to flee with Liyla, promising he will join them. The player must then catapult the character over various barriers, guide him to crouch behind a wheelbarrow when a light bomb and drone descend on the landscape, and leap to avoid a wheel rolling towards him as a rocket strikes a vehicle on screen.

All of these obstacles appear in the scene as if part of the natural rhythm of Gaza. There are no Israeli soldiers, Caterpillar tanks, or Apache helicopters present. Within the game world, it is hardly relevant where the rockets and bombs are coming from. The player is too preoccupied guiding the character to dodge obstacles.

Finally, Abu Liyla catches up to his wife and Liyla just in time to see his wife fall to the ground, presumably falling victim to a rocket attack. “Mom, wake up!” a dialogue

box shows Liyla's pleading words. Suddenly, there is an explosion in the air and white debris fall towards the characters, sparking and sizzling as it hits the ground, referencing Israel's white phosphorus.⁷ Liyla and her father run to the next scene to avoid contact with falling chemicals. Mournful orchestral music plays as Liyla and Abu Liyla are prompted to leap over burning bikes, rubble, and vehicles while running past the bombed out shells of various buildings. In this jumping sequence, the player controls both Liyla and her father, and if either fail to clear a roadblock, the scene begins again. The next scene shows the two characters come upon a group of children playing soccer on the beach. "Should we join them?" asks Liyla, and the user is faced with a question: yes, join them or no, we should keep to ourselves. The player must choose an option before time

⁷ White phosphorus stays in the ground, burning everything it comes into contact with for some time, and is activated by oxygen, so water or ointment can cause the burns to flare up. The substance is illegal to use on populations according to international law.

runs out. A large ship then sails in the background and shoots a rocket towards the children, killing them.⁸ If the user has chosen to allow Liyla to join the other children, she is killed and the scene begins again. There is no option in the game to continue play while also helping background characters.

Liyla and her father run to the next screen upon witnessing the children's deaths, where Liyla prompts: "Daddy, we should hide in the UNRWA school," and the player chooses whether or not to enter the large structure. A few moments later, the school is bombed, and Liyla and her father are thrown backwards by the impact (or are killed if they had chosen to enter). Liyla indicates that her hand has been injured. An ambulance appears in the following scene, but it has room for only one passenger. The user is then



Figure 10: *Liyla and the Shadows of War* ambulance

⁸ This scene references the 2014 murder of children Ismail Mahmoud Bakir, Ahed Atef Bakir, Zakariya Ahed Bakir, and Mohammad Ramiz Bakir, who were playing soccer on a Gaza beach when Israeli forces fired upon them.

prompted to click on the button “take my daughter, I have no option.” The emergency medical technician assures Liyla’s father they will keep her safe and drives away, only to be struck by a bomb. Abu Liyla runs towards the bombed out ambulance and picks up a round shadow, presumably Liyla’s head.⁹ An orb of light appears out of Liyla’s head and travels upwards into the starry sky, forming into her shadow and joining the shadowy, bright figure of her mother before rising off screen. Tens of similar shadows and lights



Figure 21: *Liyla and the Shadows of War* jumping sequence

join them, and the game ends with a starry sky lit up with the Christmas light- like orbs of Palestinian souls. The credits then roll, listing various numbers regarding Israeli Operation Cast Lead and other statistics regarding Israeli violence.

Liyla and the Shadows of War has no possible outcome in which the player beats the game. Rather, there is one scenario that the game is designed for—Abu Liyla witnessing the death of his wife and daughter. Each time a scene is re-started due to

⁹ This image recalls the various pictures coming out of the 2010 Gaza Massacre of children whose lifeless heads stuck out of rubble from bombed out buildings.

player failure demonstrates the ways choice has little impact on the result. Either Liyla dies at the end of the game or somewhere along the way. Each correct choice the player makes results ultimately in failure, and the wrong choices restart the scene. Players' inability to make decisions that affect the outcome of the game, even when prompted to do so, references condition of living in Gaza within the game world. Faced with conditions of premature death, Gazans, as interpreted in the game world of *Liyla*, can only work to prolong life in the face of inevitable death. The marketing materials for *Liyla* explains choice as determined by war, without revealing the game is impossible to beat:

“When you live in war zone and death is hunting everyone, things will look different and choices become harder. Face your fate in an unjust war to survive with your family from the shadows of war. Time is running against you, your family is in danger and there is nowhere to hide or to do but to get them out of home through a hero journey to a safer place. Shooting and bombing everywhere and it will hunt you unless you make fast decisions as you progress through different events. These events are real and they will make you choose the hard way. Live or die!”¹⁰ [sic]

The language used to promote *Liyla* on the Google Play app store could be used in other first person shooter or role playing games with phrases like “face your fate” and “live or die!” This language casts the player-controlled character as a hero and communicates some of the gameplay one would expect to encounter: this is a single player game, an obstacle course of sorts, the levels are defined by individual narratives or “events,” and

¹⁰ "Liyla and the Shadows of War - Apps on Google Play." Google. Accessed June 13, 2019. https://play.google.com/store/apps/details?id=org.liyla.war&hl=en_US.

survival of the main character and their family is the game objective. The story of a hero caught in a larger, almost abstract conflict is a common one for video and mobile games to employ. *Liyla and the Shadows of War* is marketed as a typical survival game, and does not reveal its unwinnability or political arena in its marketing terms.

However, the idea that all choices are false, determined by Israeli violence, becomes apparent in gameplay. Each choice is zero-sum. For example, when encountering children on the beach, Abu Liyla can only choose to join the children or keep a distance. There is no option to allow the character to warn the children of danger, no conditionality of choice. While avoiding the children is ultimately the only option for the player, the player-controlled characters are still witness to violence. The repetition of encounters that prompt false choices underscores the player's inability to affect the trajectory of the game. The player is meant to feel frustrated by the game play, which is highlighted by the timers that force players to make choices quickly.

The composition of scenes also exacerbate this feeling of helplessness. Particularly, the characters are dwarfed by the architecture that looms in the background. In contrast, the little screen space taken up by Liyla, her parents, and the other characters formulate the space of Gaza as inescapable. Rather than provide shelter, the buildings in the game act as targets for violence, as traps of false security. The home is violated as a sanctuary in the game's narrative, as Abu Liyla ushers his family out into the bomb-filled landscape. When Liyla suggests hiding in an UNWRA school, we see the building blow up from missiles. The young boys on the Gaza beach are overwhelmed by naval power. Every bit of space in the game is reconstituted into an obstacle for the characters. This casts the daily life of Gazans as exhausting, as the blockaded strip of land is the most

densely populated space in the world, with buildings extending upwards due to Israeli control surrounding Gaza. The density of Gaza intrinsically means that architecture is leveraged against Palestinians in airstrikes, with “targeted” strikes causing widespread damage, burying Palestinians in rubble. The detritus of Israeli violence cannot be repaired easily due to blockade despite routes for smuggling in materials. In *Liyla and the Shadows of War*, the feeling of being trapped in a space under siege is communicated through the looming size of buildings set ablaze from bombs and strikes that fall from the



sky, almost without origin, to pepper the landscape.

Figure 32: *Liyla and the Shadows of War* orbs

Helplessness is also communicated through the passing of time, or lack thereof, within the game, feeding to the feeling that there is no end in sight for Israeli bombardment. At the start of the game, a rooster crows, presumably signifying dawn. But the game’s lighting never changes due to the natural rhythms of the day; rather, only white phosphorus, light bombs, and flames alter the game’s ambience. The game’s rhythms as dictated by scenes rather than levels add to the permanence of Israeli violence. There is no leveling up from successfully avoiding death in a scene, no

daybreak with a lull in intensity. Rather, the characters are trapped in a space that is unchanging other than the violence enacted upon it.

Time within scenes contribute to players' lack of control in the game. The only sense of time is portrayed through timed decisions or the appearance of an obstacle. Walking past the destroyed UNWRA school to an ambulance takes Liyla and her father almost a full thirty seconds in a game where a full run-through can take just ten minutes. There are no controls for the player to use to shorten the sequence. The player simply must wait for the characters to encounter the ambulance at their own pace. There are moments when the player is not in control of characters *and* when characters are not in control of their choices. The clunkiness of control, of the relationship between the player, characters, and scene interrupt the traditionally sought-after feeling of immersion in video games to parallel the player's dependency of game algorithms with the characters' dependency on an environment they have no autonomy over.

Most games are not designed to be unwinnable. Oftentimes, those games that are impossible to beat are understood as poor design, a waste of development money, or glitch. A short game like *Liyla and the Shadows of War* does not conform to the standard aim of building up a base of regular players. The game is not designed to be fun, to be beaten, or to generate revenue. For other games, these un-game-like characteristics may detract players from engaging. However, repetitive play is not necessarily the goal for *Abueideh*. Israeli violence is present in the game but is not gamified in *Liyla*, precisely because there is no possibility of winning. This is the difference between *Liyla* and games that provide the affective rush of mastering a game, of players' grappling with game mechanics changing the outcomes of a scenario.

Rather, the aim of *Liyla and the Shadows of War* is to train the player to empathize with Gazan's lack of sovereignty and agency. This training takes place on an affective, embodied level. Kara Keeling explains the bodily interpellation needed to create an affective link between screened content and viewer. She defines cinematic perception as "the reception of images wherever they appear to a sensory-motor schema capable of memory and affect."¹¹ Keeling argues, "...shared conceptions of the world are inseparable from sensory-motor functions." For a viewing subject, cinematic perception relies on building an affective connection between the present image and memory-perception. In other words, affinity between a viewer and cinematic subject is embodied and learned. For Keeling, cinematic perception is not limited to film, but any screened content. If we look to McLuhan's argument that cinema functions as a hot medium requiring little viewer participation as opposed to understanding video games as a cool medium requiring players to engage with a built world, we can see that video games serve as a unique platform for training players to identify with represented characters. In *Liyla and the Shadows of War*, the player becomes frustrated and anxious when faced with a lack of control. As Galloway argues, "Video games render social realities into playable form."¹² Players' inability to guide a character's decisions gestures to the logics of settler-colonialism, particularly the eroding of Palestinian individual and collective sovereignty.

¹¹ Keeling, Kara. *The Witch's Flight: The Cinematic, the Black Femme, and the Image of Common Sense*. (Duke, 2007).

¹² Galloway, Alexander R. *Gaming: Essays on Algorithmic Culture*. Minneapolis: University of Minnesota Press, 2010, pg. 17

The elements of *Liyla* that make the game different from other mobile gaming applications were taken to task by Apple, Inc. in 2016. The platform rejected *Liyla* from being listed on the Apple application store, explaining to developer Rasheed Abueideh:

“As we discussed, please revise the app category for your app and remove it from Games, since we found that your app is not appropriate in the games category. It would be more appropriate to categorize your app in News or Reference for example. In addition, please revise the marketing text for your app to remove references to the app being a game.”¹³

Apple administrators argue a game is different than a news resource, and that *Liyla*'s promotional materials should not feature the language of games because of its politics and form. The developer guidelines do not delineate the distinction between games and news resources explicitly, providing only vague disclaimers:

“We will reject Apps for any content or behavior that we believe is over the line. What line, you ask? Well as a Supreme Court Justice once said, ‘I’ll know it when I see it.’ And we think that you will also know it when you cross it...We view apps different than books or songs, which we do not curate. If you want to criticize religion, write a book. If you want to describe sex, write a book or a song, or create a medical app. It can get complicated, but we have decided not to allow certain kinds of content in the App Store.”¹⁴

¹³ Orland, Kyle. "Apple Says Game about Palestinian Child Isn't a Game [Updated]." *Ars Technica*. May 19, 2016. Accessed June 13, 2019. <https://arstechnica.com/gaming/2016/05/apple-says-game-about-palestinian-child-isnt-a-game/>.

¹⁴ Apple Inc. "Guidelines and Resources." *Guidelines and Resources - App Store - Apple Developer*. Accessed June 13, 2019. <https://developer.apple.com/app-store/resources/>.

Less than a week later, the platform relented and allowed for *Liyla* to be published as a game after Abueideh took to social media to ask his friends and followers to question Apple's initial decision. The game has characteristics that are unusual for mobile games: pre-determined outcome, explicitly political narrative, lack of advertisements and therefore revenue-building. However, the suggestion that *Liyla* should be categorized as news or reference signals that for Apple, the game world of *Liyla and the Shadows of War* is either *too real* to be a game or the developer's goal to build affinity between player and character for Palestinian solidarity is at odds with the aims of a traditional game. However, like other games, *Liyla* contains a narrative and logic of play. The artistic interpretation of Gaza serves as a contextual backdrop to the game mechanics that trouble choice and control. The failure of player control is characteristic of *Liyla and the Shadows of War*. By centering the rupture, contrary to game developers' general aim for immersion, *Liyla* provides an affective experience to players characterized by frustration. The limitations within the game represent limitations faced by Palestinians in Gaza. Gonzalo Frasca includes digital gaming as a site of ideological struggle. Frasca proposes that simulation, "the modeling of a dynamic system through another system," has the potential to expose rules and mechanics of dynamic systems. Game worlds can provide a space where players can engage in "questioning the ideological assumptions of videogames," and therefore, larger systems that a video game represents. *Liyla and the Shadows of War* leverages the impossibility of winning the game to gesture to the limitations of Palestinian choice and sovereignty within besieged Gaza.

Modeling Choice

This second section of the chapter serves as a complication of the argument that destabilizing player control in videogames works to convey waning sovereignty of Palestinians. *Peacemaker: Israeli Palestinian Conflict* sets gameplay with a scenario that the player must strategically respond to. Two Carnegie Mellon graduate students, one of whom served in the Israeli Defense Forces, developed the desktop game in 2005. The pair went on to established Impact Games, a game development company that seeks to “promote deeper engagement with current events around the world” and “change the way people consume information and understand the world around them.”¹⁵ *Peacemaker* draws players into a game world that is modeled from events and political structures in Israel and Palestine.



¹⁵ "ImpactGames." ImpactGames. Accessed June 13, 2019. <http://www.impactgames.com/>.



Figures 13a and 13b: *Peacemaker* opening scenes

Upon launching the game, the player views a montage of grainy videos of approaching tanks, ships on fire, planes exploding, soldiers marching, and men in keffiyehs with dates superimposed over the images. A few images were identifiable as clips from major events regarding Palestine and Israel, including footage of the Munich Olympiastadion and the 1969 plane hijacking by the Popular Front for the Liberation of Palestine. The low quality images and lack of contextualization recalls the genre of Cold War era propaganda films. The game player is drawn into this mostly grey-scale world of seemingly random, continuous violence. The sequence then fades into the root menu featuring an image of an Israeli settlement and Palestinian town divided by the Separation Wall. The particular village and settlement is not identified, and there are no claims that any one party is responsible for this separation. Above the image there is a news ticker that displays headlines:

“Police criticized over prison policy...President cooperates with militants...Gaza approaches independence...Government supports peace plan...Security measures doing their job...Palestinians compatriots aid delayed...Report shows UN concern for Palestinians... Israeli prime ministers [sic] support slipping...Israel imposes curfew...Militant killed during raid”

Like the previous Cold War era-esque video montage, the news ticker creates a narrative to introduce the player into the game world. An historical conflict serves as the backdrop to game play, and the player presumably will be a “peacemaker” to quiet the chaotic



Figure 14: *Peacemaker* game board

regional violence.

When a player starts a new game, they are prompted to choose between the Israeli prime minister or Palestinian Authority role, with the option of having the computer randomly choose one of the two roles for you. There are three difficulty ratings to choose

from: “calm,” “tense,” and “violent.” Once an option is selected, the game launches another video montage, of unidentified soldiers marching, a government office building, and press clamoring for pictures.

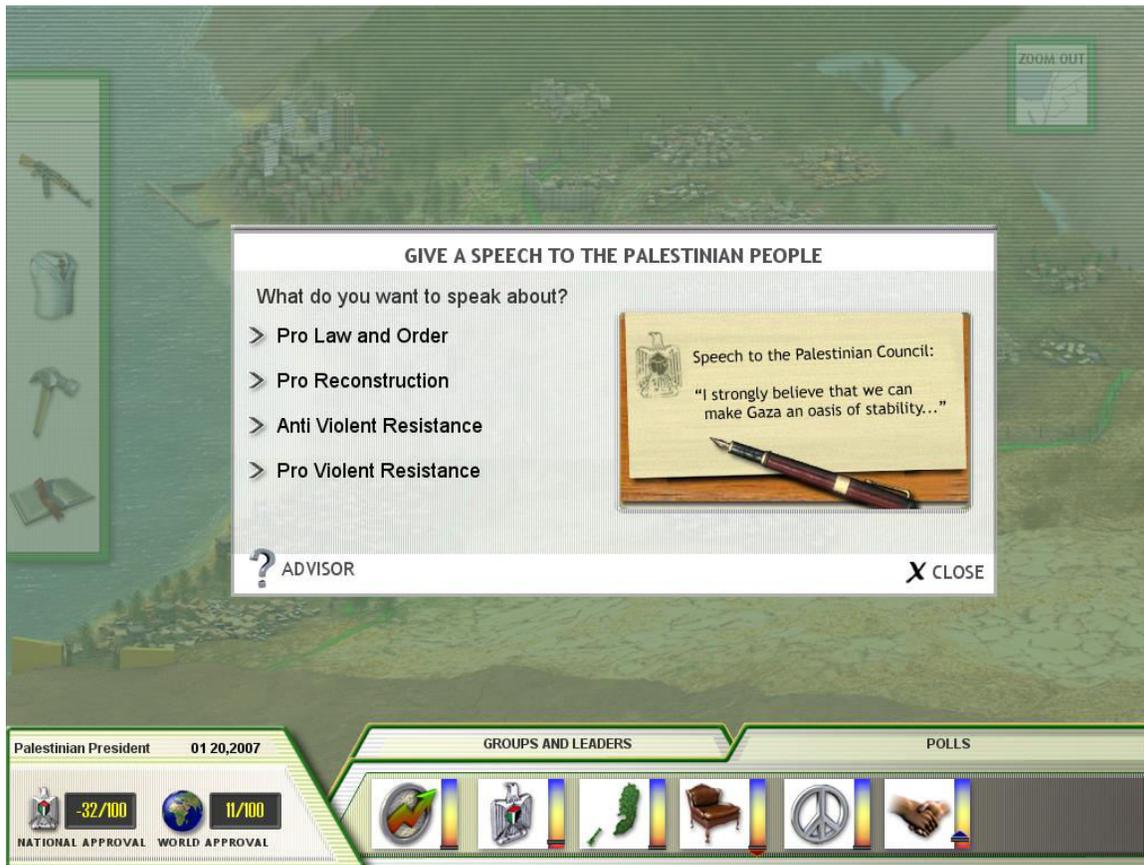
The main gameplay navigation menu is a cartoon-like drawing of a map of Israel and Palestine with the current date in the header. The land is depicted as a hilly, grassy



Figure 15: *Peacemaker* suicide bombing alert

terrain with more of a desert landscape in the south identifying al-Naqab. The player's perspective of the map is not quite aerial from directly above, but at 60 degree angle, almost the perspective of a wide-angle lens on a drone. A few Palestinian towns are depicted: Hebron (al-Khalil), Bethlehem (Bayt Lahem), East Jerusalem (al-Quds), Jericho (Ariha), Ramallah, Nablus, Jenin, Qalqilya, and Tulkarem in the West Bank and only Gaza (presumably Gaza City) and Rafah Crossing identified in the

Figure 16:
Peacemaker
gameplay options



Gaza Strip. Four unnamed settlements are in the West Bank, with the iconography resembling trailer parks quite small compared to the Palestinian villages. Israeli cities on the map include Tel Aviv, Netanya, and Haifa, signified with miniature skyscrapers and high-tech buildings as opposed to the stone buildings of Palestinian towns. The Green Line is depicted, as are small portions of the apartheid wall. Any land outside of Israel, Gaza, the West Bank, and al-Jawlan are in the periphery in greyscale.

Gameplay consists of choosing from three sets of turn options from a drop-down menu: political, security, and construction. Each of these categories contains various actions, depending on which role the player has chosen. For example, under “construction” for the Israeli leader, the player can choose to build more settlements or dismantle existing ones. These options are not available for the Palestinian Authority. After each action, counters at the bottom of screen display approval ratings for the player’s character. Once approval ratings from both Palestinian and Israeli publics reach 100 points, the player has beaten the game and created two states. The repetition of selecting actions to see how approval ratings are affected is interrupted occasionally when a target appears on a site on the map. If the target is red, it identifies unrest, and if white, identifies positive or neutral events. The player cannot take any actions until the associated alert is viewed. Alerts include notifications of settler protests, Palestinian suicide bombings, anti-government rallies, etc., that then affect the polling numbers. The game includes a timeline made up of a few major events. 1920-1948 is described as when “the British rule Palestine based on a mandate from the United Nations. Arabs and Jews in Palestine are in constant conflict. Each side wants its own state.” The British mandate over Palestine in 1923 resulted from the rise of British empire during the Ottoman decline. The United Nations, the international body that facilitated the Partition Plan, was not established until 1945. Furthermore, much of the violence in Palestine prior to 1948 was actually directed at British rule. And the categories of Arabs and Jews are not stable in this period (or currently) because generations of Arab Jews lived in Palestine who were then incorporated into the Israeli state. These event summaries serve the

game's narrative that the two state solution is the only tenable option to ease Palestinian and Israeli tension.

The gameplay is disconnected from the events on the timeline, as the in-game start date is when a new game is created. Playing as either the Palestinian or Israeli leadership allows for different types of actions to be taken. For much of the Palestinian play, actions are automatically canceled by the game. For example, if the player requests aid from Jordan or Egypt, and the nations' leaders would explain they would invest "in the future." Any declaration of an independent Palestinian state is cancelled by the game. The approval ratings climb at a glacial pace or fall dramatically, as they were dependent on so many different Israeli and Palestinian factions, from the settler council to Fatah to doctors in Gaza. There were other limitations to acting as the Palestinian leader. For example, most of the construction options could not be funded through the internal budget or from international donors that were continuously pulling funding due to the "instability of the region." As the Israeli character, the player is offered a much wider range of actions that had immediate results, though there were some limitations given the

Israeli parliamentary system.¹⁶ The leader could withdraw military forces, offer aid to Palestinians, free prisoners, build more settlements, and deploy troops. Playing as either a Palestinian or Israeli leader proves challenging, as approval ratings must reach 100% for each party.



Figure 17: *Peacemaker* end screen

¹⁶ The limitations provided to players in digital games like *Peacemaker* have a precedent in board games. The 1973 game *Sinai* is played within the context of three wars of 1956, 1967, and 1973. Each can be played with historically accurate or alternative versions. The historical version of 1967, for example, limits Arab armies to no airpower, and forcibly retreating when in the vicinity of an Israeli counter. Each of these rules is meticulously laid out in an extensive gameplay manual, illustrating the ways board games can make explicit particular narratives regarding “the real.” An alternative “Increased Arab Cooperation” scenario allows Arab forces to enter any Arab territory, be refueled by any Arab supply source, and attack Israeli units together: “One of the major problems of the Arabs has been the fact that they don’t really like or trust each other much more than they trust the Israelis,” the commentary explains, “This scenario is to simulate the possible effects of the Arab nations fighting Israel as a unified force.” The fictional scenarios like “Increased Arab Cooperation” provided by the game developers imagine alternative histories. These scenarios are included to encourage players to return to the game and experiment with probabilities given different conditions of play, but also indicate the uncertainty of an Israeli victory, and the indeterminacy of settler-colonialism.

Peacemaker translates the uneven power of Palestine and Israel in its game mechanics. Vít Sisler reflects on the gameplay of *Peacemaker*: “Again, by subverting one of the fundamental rules of strategy games—the balance of both sides—*Peacemaker* and its procedural forms recreate the actuality of the real life conflict perhaps better than most more technically advanced mainstream video games.”¹⁷ The actual game mechanics disadvantage the Palestinian character in similar ways to “real life.” At the same time, the possible gameplay actions fall into working within the same system that has disadvantaged Palestinians— from negotiations involving the United States to presenting in front of the United Nations. For anyone invested anything other than a two state solution, there is no way to win *Peacemaker*. The game continues indefinitely unless the approval ratings fall low enough for the game to trigger impeachment or Intifada. There is no other possible conclusion to the game besides a two-state solution (beating the game) or failure. In this game, sovereignty, however minimal, is equivalent to peace. The diplomacy of *Peacemaker* flattens the significance of sovereignty by assuming statehood is the avenue for peace. Unlike games that allow for the users’ choices to change the outcome of the narrative, *Peacemaker* can only prompt players to work within international systems of power to create two states. For example, the Palestinian Authority can only interact with Hamas if disarming or disavowing the political party. In fact, *Peacemaker* rewards players for going through traditional avenues for Palestinian sovereignty. The game feels as though it is comprised of two competing halves—one that acknowledges and portrays the limitations Palestinians face politically, and another that

¹⁷ Sisler, Vít. “Digital Arabs: Representation in Video Games.” *European Journal of Cultural Studies*. Vol. 11, No. 2, SAGE Publications, 2008, pp. 203-220. ISSN: 1367-5494.

decontextualizes this disenfranchisement from historical conditions of settler-colonialism in order to center the player as a key figure in bringing peace to a war-torn region.

Because software occludes code, digital-based games like *Peacemaker* make invisible mechanisms of play. When the Palestinian Authority leader in *Peacemaker* requests international funding for infrastructure, for example, the game seemingly arbitrarily translates this gameplay move to points. A board game like *SPI Sinai*, instead, provides detailed instructions regarding when moves can be made and how these choices translate to point value. On the other hand, from the player's perspective, the occlusion of logics within *Peacemaker* can be understood as a translation of the structures and mechanisms by which Palestinians are disenfranchised. The player acting as Palestinian Authority leader is met with a lack of agency as the game rules prevent most actions. However, it does not provide a critical reading of this frustration. Rather, the player is guided through the game narrative to understand structures of disenfranchisement as puzzles to be mastered in order to achieve a desired outcome, the two state solution.

Peacemaker creates a representation of “the real” within the gameworld. In a quantitative analysis of Jewish, Palestinian, Turkish, and American undergraduate focus groups playing *Peacemaker*, Ronit Kampf and Nathan Stolero found that third party players (ie, Turkish and American) felt they gained knowledge regarding the conflict after playing the game, acquiring a “more balanced” understanding of the geopolitics of Palestine.¹⁸ However, Jewish and Palestinian players indicated minimal change, if any, in knowledge or feelings regarding the most recent Israeli incursion into Gaza, Operation

¹⁸ Kampf, Ronit and Nathan Stolero. “Computerized simulation of the Israeli-Palestinian conflict, knowledge gap, and news media use” in *Information, Communication & Society* 18:6 (2015).

Pillar of Defense. The narrative created in *Peacemaker* advocates for Palestinian sovereignty based on normalizing tactics both within and outside of the game. Following Wendy Hui Kyong Chun's argument regarding software, *Peacemaker* functions in "making something explicit, of making something intangible visible, while at the same time rendering the visible (such as the machine) invisible."¹⁹ In bringing to players' consciousness the inaccessibility of sovereignty to Palestinians, *Peacemaker* makes invisible the historical conditions that have structured Palestinian disenfranchisement, and the tangible ways Palestinians continually resist against Israeli occupation. For example, the game's spatial imaginary of Palestine elides the territorial fragmentation and re-routing of natural resources caused by the Wall and settlements. The contrast in signifiers for Palestinian and Israeli cities also falls within the logic of European modernization of the Middle East endorsed by Theodor Herzl, while also referencing the historical presence of Palestinian towns in contrast to the high-tech development in Israel. The game's imagined geography of Israel and Palestine is one that furthers the premise of the *Peacemaker*, that there is a conflict for reasons unknown that must be managed.

In-game alerts further the game premise that Palestine is a place of randomly erupting violence with no context. In particular, the suicide bombing alert is ahistorical, considering Hamas denounced suicide bombings following the Second Intifada in the early 2000s. Another alert reported that 18 Palestinians were killed and 40 wounded by tank fire. When I searched for these statistics, I could not find anything that matched those specific numbers. These decontextualized stories are accompanied by decontextualized images of wailing Palestinian women that can be skipped by the player

¹⁹ Chun, Wendy Hui Kyong. "On Software, or the Persistence of Visual Knowledge." Grey Room 18 (Winter 2004): 26-51.

if so desired. Though the developers claim that events within the game are “based on real events,” this statement acts as both a disclaimer and a deliberate blurring of the game world against the “real” world. The statistics, images, and alerts in *Peacemaker* seem real because of ripped-from-the-headlines footage, but lack context and historicization.

While I take seriously the claim that games can only teach players how to play games, within the context of *Peacemaker*, I argue that developers deliberately create a narrative that merges the game world with “the real.” Within game studies, scholars argue whether games are ideological or mechanical. For example, a game about looting does not teach players how to steal cars, but how to beat a game. The narrative is not central to a game. Instead, it serves as a backdrop to interpellate players, similar to how moving a file to a folder on your desktop does not actually move a document to a folder. The argument is whether a game is primarily experiential, generating audience activity, or a communicative medium that should be subject to interpretation just as a film or novel is. Referencing McLuhan’s analogy of a cold medium inducing hypnosis allows us to understand the goal of *ImpactGames* to train players to understand Palestinian activism within the context of a two-state solution. The ripped-from-the-headlines places and events referenced in *Peacemaker* demonstrate developer aims to use in-game action to encourage particular types of activism.

Conclusion

Games are a bounded space where players are invited to intervene and thus reshape the game world. For these two games that feature Palestine, the game worlds serve as a micro-representation of sociopolitical relations. Both *Liyla* and *Peacemaker* leverage the game narrative to communicate forms of Palestinian sovereignty. Palestine is

imagined in relation to the international peace process or in relation to Israeli violence. What this chapter offers is the centrality of game logics and play in imagining sovereignty. The limitations placed on players create an affective link between the represented characters and the users, punctuated by feelings of frustration directed at game mechanics and by extension, settler-colonial logics. However, when reading these two games together we can see that neither game elicits both empathy and provides an avenue for direct action. *Liyla and the Shadows of War* uses narrative and limitations of control to translate the effects of a besieged Gaza to game play. *Peacemaker* focuses not on storytelling, but occluded game rules to portray the difficulties of navigating an international political arena. The game offers a slim opportunity for players to succeed within the systems that limit Palestinian characters from exercising sovereignty. However, the game worlds are not 1:1 translations of “the real,” even as they portray historical events. Rather than take the games as complete representations of political systems, we can instead see the affordances of creating game worlds to imagine and troubleshoot alternative formulations of sovereignty, agency, and relationality.

CHAPTER IV

Un/Mapping Palestine

Abstract

On Monday, February 29th, 2016 two members of the Israeli Defense Forces accidentally entered West Bank town Qalandiya. They opened fire on the Palestinian residents, killing 22-year old student Iyad Omar Sajadiyya. This chapter centers the death of Sajadiyya to examine the disappearance of Palestine from maps and the effects of cartographic erasure. I formulate the process of *unmapping Palestine* as a type of imagined geography characterized by the un-writing of indigenous sovereignty.

Unmapping Palestine has a fraught orientation towards settler-colonial erasure rather than being intrinsically in alignment with the process of genocide. I look to the unexpected encounter of IDF soldiers with Qalandiya as an assertion of indigenous presence within the larger process of Israeli occupation. The moments that Palestine comes to the forefront of colonial imaginary, like in the unintentional trespass of IDF soldiers into Palestinian towns, shed light on the incomplete nature of erasure, the instability and indeterminacy of colonial encounter. The death of Omar Sajadiyya is paired in this chapter with the Maps.me navigation application used by Palestinians as an alternative to Waze. Maps.me uses information from OpenStreetMap, an open source collaborative mapping community that draws from various sources including user traces, government archives, and corporate donations. Understanding the process behind

OpenStreetMap map-making for Palestine complicates the concept of *unmapping Palestine* by looking to the practical needs of accurate maps for humanitarian and local purposes, but also the ethical questions of open source prompted by free use of data. The unmapping of Qalandiya and the collaborative open source mapping of OpenStreetMap are juxtaposed in this chapter to address the question: what productive work does un/mapping do given the precarity of Palestinian life? In other words, what are the politics of creating accurate maps of Palestine?

Mapping Palestine



Figure 18: Palestinian loss of land (MSNBC)

A common visualization of Palestinian land shows four maps side by side to illustrate dispossession.¹ The quadriptych conveys the growing sovereignty of the Israeli state, as each subsequent map represents more and more Israeli land and less and less Palestinian land. The visualization identifies that settler-colonialism is an ongoing

¹ Institute for Middle East Understanding, "Fact Check: MSNBC's Palestinian loss of land map" on Mondoweiss.net (22 October 2015)

process. However, the dispossession of Palestinian land as represented in the four maps can be interpreted as inevitable. The yellow identifying Israeli land encroaches upon the green iconography of Arab land to illustrate a seemingly continuous process of shrinking Palestine that will only stop when there is no green territory left. While used in pro-Palestine circles to convey the historical existence of Palestine and the contemporary processes that transfer that land to Israel, the quadriptych also gestures to the imagined teleology of settler-colonialism. Like the American colonial concept of manifest destiny, Israeli sovereignty over Judea and Samaria seems to be divinely mandated.

However, the depiction of territories outside Israeli jurisdiction in itself tacitly recognizes Palestine's existence and rootedness. Land not yet incorporated into Israel draws attention to the incompleteness of erasure, to the possibility of resistance. Settler-colonialism is a fraught process rather than a teleological mandate. The maps of Palestine illustrate ongoing processes of dispossession and erasure that can be intervened in. The disappearance of Palestine from maps is juxtaposed with the presence of seven million Palestinian refugees worldwide. Therefore, in various encounters between settler-colonial states and Palestinians, the structure of genocide and erasure is faced with the paradoxical problem of identifying and managing Palestinians, a people the Israeli state has worked to disavow the existence of; the erasure of Palestine creates a problem for the settler-colonial structure by creating a class of undefinable people. The Israeli state then must engage in discursive and political manoeuvres to deal with the excesses of a genocide not yet completed, of a settler-colonialism that is a structure rather than event.

The practice of mapping makes visible the ongoing process of settler-colonialism, and therefore the precarity of indigenous life and land. Judith Butler defines precarity as

vulnerability to premature death rooted in categorizing groups as in/human: “Whose lives count as lives? And, finally, what makes for a grievable life?”² As Israeli sovereignty expands over more land, Palestinians are exposed to even more violence that casts Palestinian lives as expendable. This violence takes various forms, from limiting natural resources for sustenance and trade to displacing towns for Israeli settlements. Palestinians are not recognized as full, protected subjects of the Israeli state. The shrinking territory of Palestine on maps inversely indicates growing precarity induced by statelessness.³

This chapter centers the 2016 IDF murder of Palestinian student Iyad Omar Sajadiyya as an encounter between the Israeli state and Palestine that gestures to the limits of cartographic erasure. Sajadiyya was in the Qalandiya refugee camp when the Waze smartphone application directed Israeli soldiers through camp despite the area’s Palestinian administration.⁴ His death was a result of clashes that occurred due to this incursion. Through close reading Sajadiyya’s murder, I engage in a reading of geographical instability that acknowledges precarity associated with statelessness. However, I argue the indeterminacy of the Israeli settler-colonial project also becomes evident in this unexpected encounter between the Israeli state and Palestinians. I delineate the strategies employed by Israeli state and non-state actors to disappear Palestine. I then draw attention to what spaces of resistance that can exist within and despite the process of cartographic erasure.

² Judith Butler, *Precarious Life: The Powers of Mourning and Violence* (Verso, 2006), 20.

³ Achilles Mbembe, “Necropolitics” in *Public Culture* 15:1 (2003) 11-40 and Judith Butler, “Performativity, Precarity, and Sexual Politics” in *Revista de Antropología Iberoamericana* 4:3 (2009) i-xiii

⁴ “Palestinian shot dead in Israeli raid on Qalandiya refugee camp,” Ma’an News Agency (1 March 2016)

Erasure of Palestine from maps does not just indicate the efficiency of settler-colonialism. I coin *unmapping Palestine* to describe the erasure of Palestine from maps. The disappearance of Palestine from maps *does* result in Palestinian precarity, as seen through the disappearance of Qalandiya on Israeli maps that led to the death of Sajadiyya. However, I argue that cartographic erasure facilitates *failures* or *errors* in settler-colonial structure, revealing the inner workings of erasure and gesturing to the instability and indeterminacy of settler teleology. I draw on extensive scholarly work to formulate error as unexpected behavior within a system that is a result of predictable behavior. In other words, error is *constitutive* of a system's operations and *gestures to the instability* of the system. Specifically, I argue that the *failure* of settler-colonial structures stemming from cartographic erasure in *unmapping Palestine* is *constitutive* of settler-colonialism. The failure of Israeli soldiers to account for Qalandiya's existence is not a failure of Israeli settler-colonialism. Rather, the soldiers' error is a symptom of cartographic erasure that works towards the goals of settler-colonialism in furthering the precarity of Qalandiya residents (i.e., Israeli soldiers firing on Palestinians). However, the navigational error also resulted in the unexpected reminder that Palestinian refugee camps still exist and flourish despite Israeli occupation. The co-constitutiveness of the functioning and failure of *unmapping Palestine* destabilizes the rhetorical teleology and inevitability of genocide.

The productive nature of cartographic erasure in *unmapping Palestine* draws on Heidi Rae Cooley's concept of productive mismapping.⁵ Cooley's digital map *Ghosts of the Horseshoe* combines historical and contemporary maps to bring awareness to

⁵ Heidi Rae Cooley, "Productive Mis-mappings: Critical Disorientations on the University of South Carolina's Historic Horseshoe" in *Television and New Media* 18:4 (2017), 361-274.

processes of erasure regarding slave labor on the University of South Carolina campus. *Horseshoe* structures do not map onto each other neatly, and the application does not center user point of view like Google Maps and other navigation services do, making the map difficult to read. *Horseshoe* dis-oriens the user, and in turn dis-oriens assumptions about spatial mastery, accessibility, and transparency that colonial understandings of geography are imbricated in. Therefore, *Horseshoe* both maps and critiques the process of mapping by drawing on historical and situated knowledges to highlight black erasure. Following the methods of *Horseshoe*, I formulate an understanding of Palestine's disappearance on maps as not simply a tool of colonialism, but as a productive phenomenon that works both towards and against the goals of settler-colonialism.

I juxtapose my formulation of *unmapping Palestine* with the collaborative maps of Palestine produced by contributors to the mobile application Maps.me and its source data hosted on OpenStreetMap (OSM). The information on Maps.me and OSM is submitted by tourists, Palestinian locals, and remote "armchair mappers" for a global humanitarian audience. I draw on the OSM wiki pages to think through the process of data valuation for collaborative mapping projects. I look to OSM as an alternative mapping community to Waze because contributors explicitly acknowledge the politics of mapping in their logs. Therefore, I use OSM as a counter-point to Waze in understanding the productive power of crowd-sourced maps but also the imbrications these alternative mapping practices have in colonial understandings of spatial mastery.

Navigating Palestine

On Monday, February 29th, 2016 two non-combat members of the Israeli Defense Forces (IDF) drove through the refugee camp Qalandiya in the West Bank. The United

Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA) established Qalandiya for internally displaced Palestinians in 1949. Using the Israel-developed crowd-sourced navigation application Waze, the soldiers stumbled into the camp after failing to enable a setting that avoids areas “dangerous or prohibited for Israelis to drive through.”⁶ An email statement from Waze spokeswoman Julie Mossler later clarified, “the driver deviated from the suggested route and as a result, entered the prohibited area.” Camp residents pelted the armored vehicle with stones in an attempt to run the soldiers out of Palestine Authority- administered Qalandiya. The soldiers followed IDF protocol and opened fire on Palestinian residents of the town. 22-year old student Iyad Omar Sajadiyya was shot in the head and died as a result.⁷

Much of the coverage following the clashes centered on the soldiers’ use of Waze, rather than a physical map provided by the IDF. Israeli Lieutenant Colonel Peter Lerner condemned the use of GPS navigation: “They should be using maps, and they should know the route.”⁸ This incident is not the first time navigation issues have been blamed for Israeli trespass on Palestinian Authority (PA)-controlled lands. In June 2015, PA officials escorted two IDF soldiers who used Waze to navigate to the Beit Lid military base. However, Beit Lid is also the name of a Palestinian town in the West Bank, and the application directed them to the latter Beit Lid. And in October 2016, four off-duty

⁶ Moore, Jack. "The Waze Mapping App Accidentally Directed Israeli Soldiers into a Palestinian Refugee Camp." *Newsweek*. May 25, 2016. Accessed June 13, 2019. <http://www.newsweek.com/waze-app-misleads-idf-soldiers-palestinian-refugee-camp-resulting-deadly-431888>.

⁷ The Hannibal Directive allows Israeli soldiers to kill Palestinian civilians to stop the potential capture of a soldier

⁸ Hadid, Daa. "Israeli Soldiers Get Lost Using Waze App, and Clashes Follow." *The New York Times*. March 01, 2016. Accessed June 13, 2019. <https://www.nytimes.com/2016/03/02/world/middleeast/waze-israel-soldiers-west-bank.html>.

soldiers were extricated from a PA-controlled West Bank area north of Hebron while en route to natural springs nearby, leading to an IDF investigation into similar accidents.⁹



Figure 19: Waze

The application in question for most of the navigation errors identified in Israeli excursions into Palestinian territory is Waze. Waze was first released in Israel in 2006 under the name FreeMap Israel and was bought by Google in 2013.¹⁰ At the time, Waze boasted over 50 million users and provided full maps of 13 countries. As of 2018, Waze has over 100 million users and 500,000 volunteer map editors that monitor user submissions for data quality control. The smartphone application provides real-time voice-guided global positioning system (GPS) navigation turn-by-turn directions. The

application relies on both passive and active user-generated information. Anonymous passive user-generated information is collected through users' GPS locations to calculate

⁹ IDF rescues 4 off-duty soldiers from palestinian area of west bank. (2016, Oct 20). *The Times of Israel* Retrieved from <http://proxy.lib.umich.edu/login?url=http://search.proquest.com.proxy.lib.umich.edu/docview/1830843814?accountid=14667>

¹⁰ Jean Christophe Plantin's text *Participatory Mapping* identifies 2005 as the watershed year for web-based mapping. The year sees the publication of base maps online, the opening of global positioning systems to the public, the development of Web 2.0, and the spread of programming interfaces from multiple web services. Online maps are "mashup" in form, drawing data from a variety of sources.

average travel times along various routes. Users can actively submit information including gas prices, red light running cameras, police presence, traffic accidents, potholes, construction, etc. Unlike other services that offer real-time navigation, Waze gamifies crowd-sharing information by increasing user rankings based on information submission. Account holders are encouraged to provide real-time road conditions via hands-free voice control. The more users submit data passively or actively to Waze, the more often the application's algorithms will optimize routes based on travel time, safety, and hassle. Waze can also be integrated with Facebook to share locations with friends. The application also allows users to send messages or "virtual beeps" to other drivers. Waze has partnered with local emergency personnel, transportation authorities, and sports teams to provide data on road conditions.

The aesthetics of Waze can be described as cute. User icons are displayed as different emojis, pictorial symbols that represent emotions. The symbols are bubble-shaped with faces. Even the icons representing accidents are cute with multicolored vehicles sandwiched together and a yellow star in the middle signifying a crash. Sianne Ngai explains the two-fold appeal of a cute aesthetic:

"Cuteness is a way of aestheticizing powerlessness...It hinges on a sentimental attitude toward the diminutive and/or weak, which is why cute objects—formally simple or noncomplex, and deeply associated with the infantile, the feminine, and the unthreatening—get even cuter when perceived as injured or disabled...

Cuteness is also a commodity aesthetic, with close ties to the pleasures of domesticity and easy consumption. Cuteness could also be thought of as a kind of pastoral or romance, in that it indexes the paradoxical complexity of our desire for

a simpler relation to our commodities, one that tries in a utopian fashion to recover their qualitative dimension as use.”¹¹

For Waze, the cute iconography signals an accessible commodity. Users can imagine themselves as part of the Waze community as they contribute to a monetized archive of information. The cuteness of the application also makes it difficult to imagine that submitted data can be used for questionable or violent purposes, like navigating military units through towns.

Originally a Hebrew-language navigation system for Israel, the application has a targeted audience that does not include Palestinian refugees. Part of this exclusion is endemic to new media that boast universalizing communication and data but are subject to de facto exclusion. Systemic exclusion is indicated by the buy in cost of using Waze: owning smartphones and having access to fast networks is based on telecommunication infrastructure. Palestinian information and communications technology has been hindered developmentally through Israeli occupation. Specifically, Israel prevents the installation of infrastructure along the apartheid wall that already swallows swaths of West Bank land.¹² Furthermore, the Palestinian Ministry of Telecommunications and Information Technology alleges that Israel polices and interrupts service to Palestinian territories. And Israeli-induced joblessness due to siege, blockade, and apartheid make impossible the buy-in cost of mobile devices and data plans that prevents many Palestinians from engaging with applications like Waze.

¹¹ Adam Jasper and Sianne Ngai, “Our Aesthetic Categories: An interview with Sianne Ngai” *Cabinet Magazine* (Fall 2011)

¹² Helga Tawil-Souri in *Signal Traffic: Critical Studies of Media Infrastructures*, e.d. Parks, Lisa, and Nicole Starosielski, Urbana: University of Illinois Press, 2015.

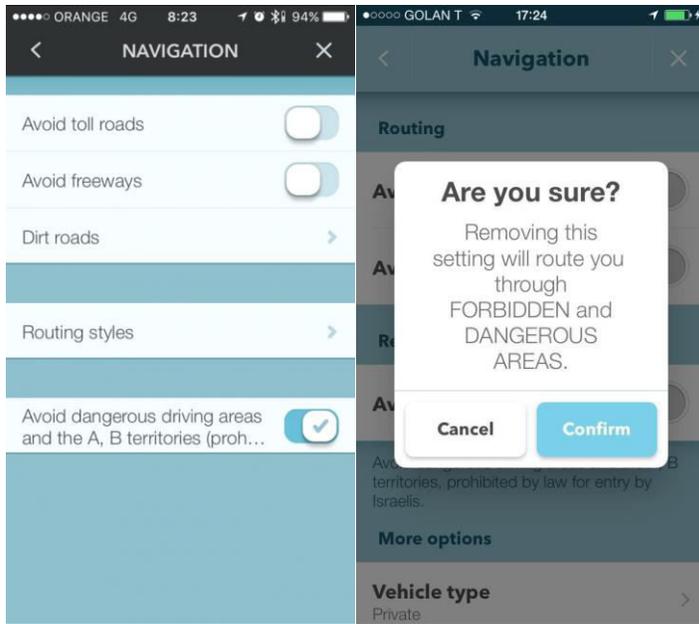


Figure 20: Avoid Palestinian lands on Waze

The exclusion of Palestinians from Waze’s imagined audience is also explicit in the application’s settings. Siva Vaidhyathan explains that default settings “influence (though they do not control) habits of thought and action. These default settings, these nudges, are expressions of an ideology.”¹³ In Israel, Waze has a safety feature that allows users to “avoid dangerous driving areas and the A, B territories, prohibited by law for entry by Israelis.” The option is located alongside prompts to avoid toll roads, freeways, and dirt roads. Should a user decide to disable safe mode, as the Israeli soldiers who killed Sajadiyya did, Waze prompts a confirmation: “Removing this setting will route you through FORBIDDEN and DANGEROUS AREAS.” This option identifies Israelis as the audience Waze caters to. There is no alternative setting for Palestinians to avoid settlements, checkpoints, or Jewish-only roads that are sites of violence for Palestinians. And in fact, no such route is available for Palestinians, whose freedom of movement has been limited through Israeli settler- colonialism. The default safety features for Waze in

¹³ Vaidhyathan, Siva. *The Googlization of Everything: (and Why We Should Worry)*. Berkeley, CA: University of California Press, 2012. Pg. 110

Israel recall medieval European maps that displayed monsters in uncharted territories; unsafe areas are unmapped areas and vice versa. Because Waze's intended audience is those with access to smartphones, a network, data, and in Israel, those who would care to avoid Palestinian-administered areas, Qalandiya's missing status on the maps cannot be interpreted as an oversight. Rather, Waze functioned perfectly in the situation. Israelis would not necessarily know there is a refugee camp in an area that they are routing around because of "danger." Therefore, everyday Israeli users of the application would not add that information to a crowd-sourced application. For the Waze app, error due to incomplete information is part of the software design. Though the navigational difficulties may not have been predictable to the application developers, the problems arising from the application are intrinsic to its functioning.

Crowd-sourced applications like Waze rely on user information that is situated and partial. For a Palestinian West Bank resident or an Israeli soldier, Beit Lid refers to different spaces. An algorithm or remote mappers cannot account for the instinctive. The situated knowledge of a Palestinian is not centered in the Waze app, as the user is assumed to be Israeli. The absence of Qalandiya gestures to the collective practice of imaginative geography. Common-sense notions of space are crowd-sourced to

technological platforms.¹⁴ Waze maps are imbricated with ideology. What landmarks are identified, if Arabic or Hebrew names are used, and what default routing settings are programmed in Waze all reflect the politics of geography and navigation.

Situated knowledges also gesture to the politics of infrastructure. Shannon Mattern frames infrastructure as a platform that runs underneath a structure, and is shaped by formal and informal policies and practices. Mattern quotes Gregory Bateson, arguing that “infrastructure is a ‘relationship or an infinite regress of relationships. Never a “thing.””¹⁵ Infrastructure therefore facilitates encounters rather than passively being subjected to relations. For example, in 2015, Waze came under fire in the attack of an elderly couple using their navigation application.¹⁶ Regina and Francisco Múrmura were the targets of a shootout when their vehicle was accidentally routed to a Brazilian favela, a low-income urban housing area. The couple was navigating to a beachside suburb,

¹⁴ Historically a tool of colonial power, maps exacerbate the myth of control by imagining space as static, by inscribing one interpretation of land as truth, bringing the unknown into the fold of the known, and therefore the conquered. Ella Shohat argues: “The representational achievements of cartography, in other words, are contextualized historically as the product of scientific discoveries (the sailing ship, the compass) and of heroic discoverers.” Unknown lands, therefore, are “made palpable to the observer through the image of the map, the consequence of these explorations.”¹⁴ These maps facilitated colonialism in its various iterations—from colonial natural resource expropriation and transit to the metropole, to settlement and declaration of sovereignty over indigenous land. Shohat draws on Edward Sa’id’s imagined geographies, defined as the discourses and representations of a particular place or culture. She identifies mapping as a representational practice, explicitly identifying the partiality and situatedness of representing the Other. Cartographic science for Shohat is therefore akin to cinema or narrative, and the work of colonial representation runs through these various mediums. While maps may appear to be objective reflections of geography, Shohat and Sa’id demonstrate the politics of maps by arguing any representation of geography is interpretive.

¹⁵ Mattern, Shannon. *Deep Mapping in the City* (Minnesota Press, 2015), pg. 11

¹⁶ Baker, Keiligh. "Regina Múrmura Shot Dead in Front of Her Husband in Gang-controlled Favela." Daily Mail Online. October 05, 2015. Accessed June 13, 2019. <http://www.dailymail.co.uk/news/article-3260947/Wife-70-shot-dead-husband-gang-controlled-favela.html>.

searching for a street with the same name as a road in the favela. Regina Múrmura was killed in this accidental encounter. The politics of infrastructure surface in these navigational errors. Rather than understanding favelas and refugee camps as mere structures without politics, one is prompted to reframe infrastructure as a product and structuring determinant of relationships. The liminal status of both favelas and refugee camps as temporary housing with semi-permanent status gestures to the deferment of encounter. These temporary structures reflect conditions of precarity and instability, of the inevitability of future displacement. In the case of Qalandiya, the camp's status as temporary housing for internal refugees established by the United Nations in 1948 indicates an acknowledgment of displacement that ironically was facilitated by the same international body. The problem of Palestinian refugees is suspended in the establishment of a camp. The temporary housing signals Palestinian refugees are a problem to be dealt with at a later moment. Similarly, the favelas pose a problem to the Brazilian metropole by symbolizing crime and poverty that has been pushed out into the urban periphery. The temporary status of these structures makes them difficult to map, as they are not understood as permanent structures and have their own systems of governance.

Those who reside in these temporary housing structures can be understood as what Lisa Marie Cacho identifies as “ineligible for personhood,” those subjected to laws but deprived of the means to advocate for themselves.¹⁷ These populations are ontologized as strangers, evacuated of the political power that works to create unlawful bodies. However, in the encounters facilitated by Waze, infrastructures of deferment insist on their presence in the now. As the Israeli soldiers found out quickly, temporary

¹⁷ Cacho, Lisa Marie. *Social Death: Racialized Rightlessness and the Criminalization of the Unprotected*. New York: New York University Press, 2012.

housing still facilitates practices of governance that conflict with or supersede official government. The refugee camp reminds those responsible for its existence that it is not a manageable problem to be dealt with later. Rather, the camp inscribes its presence onto the map, asserting its existence in the Israeli imaginary. In the unexpected encounter that was not been predicted by Waze, the refugee camp insists on the persistence of Palestinian existence, the persistence of the Palestinian refugee crisis.

Creating a map with Qalandiya on it would make the structure of a refugee camp a permanent presence, a permanence that Israeli ethnic cleansing disavows. The erasure of Qalandiya gestures to the disappearance of Palestine within settler-colonial imaginaries of geography. If mapping brings territories into control, this unmapping of Qalandiya provides a moment where control is contested. Similarly, the Waze error of Beit Lid provides a productive mismapping that is only accessible to Israelis; a Palestinian would know that crossing checkpoints would extend travel time and therefore would be clued in that the wrong Beit Lid had been chosen as destination. The ease of Israeli travel allows for this navigation error to occur. Indigenous presence makes itself known to those without access to situated knowledges. *Unmapping* leverages disappearing Palestine by opening up a space outside of control from which to work with. The unexpected spaces that Palestine appears in the Israeli imaginary forces the colonial powers to deal with the problem of Palestine then, to react rather than be on the offensive. And it is in these encounters where settler-colonialism is faced with its own gaps and failures. It is in these encounters that we can see the indeterminacy and limitations of inscription and mapping. Even if erased from documentation, Qalandiya—and Palestine—exists outside of the colonial imaginary.

While the IDF incursion into Qalandiya was portrayed as an ordinary wartime error by the IDF, the discourse of error elides the political and rhetorical maneuvers that work to make Palestinian death acceptable rather than an aberration of Israeli protocol. Israeli defense minister Moshe Yaalon claimed that Omar Sajadiyya was armed when shot by IDF soldiers, an assertion that was not widely circulated in English-language news media.¹⁸ This narrative serves to criminalize Palestinian resistance, which is characterized by the United States and Israel as terrorism, making Sajadiyya's death excusable.¹⁹ The U.S. State Department defines terrorism as politically motivated violence against noncombatants by subnational groups. However, the United Nations General Assembly in November of 1978 passed resolution 33/24 that "reaffirms the legitimacy of the struggle of peoples for independence, territorial integrity, national unity and liberation from colonial and foreign domination and foreign occupation by all available means, particularly armed struggle." Therefore, the distinction between terrorism and resistance in the Palestinian context depends on whether or not Palestinians are understood as indigenous peoples fighting colonial power or as subnational groups engaging in violence for the purpose of territorial expansion and ethno-religious supremacy. The technicalities of language around sovereignty therefore allow Israel to excuse itself of culpability for an accident of war by claiming reasonable room for error

¹⁸ Oster, Marcy. "2 Israeli Soldiers Attacked after Waze Directs Them to Palestinian Refugee Camp." Jewish Telegraphic Agency. March 01, 2016. Accessed June 13, 2019. <https://www.jta.org/2016/03/01/israel/2-israeli-soldiers-attacked-after-waze-app-sends-them-into-palestinian-refugee-camp>.

¹⁹ "Palestine: Legitimate Armed Resistance vs. Terrorism." The Electronic Intifada. February 12, 2017. Accessed June 13, 2019. <https://electronicintifada.net/content/palestine-legitimate-armed-resistance-vs-terrorism/5084>.

in operations. The Israeli state understands *all* Palestinians as combatants threatening the ethno-religious purity of a Jewish state, and therefore cannot be incorporated. For those who understand Palestinians as indigenous, the distinction between civilian and combatant is unimportant as all Palestinians have rights over the land of Palestine.

Claims of error elide the centrality of the accident to practices of Israeli colonialism. During the 2009 Gaza Massacre, IDF forces killed three of Izzedin Abuelaish's daughters and his niece after soldiers "mistook the family for Hamas lookouts."²⁰ Four years later, an Israeli missile killed twelve-year-old Ma'moun al-Dam as he played soccer during a family picnic in Tal al-Hawa, Gaza. IDF representatives explained: "We found no fault in this attack, despite the regrettable outcome... There was no evidence to support a conclusion that the attack was carried out illegally."²¹ In 2015, IDF snipers killed thirteen-year-old Abdel Rahman Abdullah while attempting to quell a protest in Aida, a West Bank refugee camp.²² Israeli journalist Noam Rotem explains these wartime mistakes or accidents prompts the IDF to make statements absolving itself of responsibility: "Often times it 'regrets,' or it 'didn't intend to,' or it 'looks into the incident; and comes out clean — there's always some coincidence in which innocent civilians are killed by the IDF, which admits to their innocence but never asks for

²⁰ "Gaza Doctor Sues Israel for Killing His Family." The Jerusalem Post | JPost.com. March 16, 2017. Accessed June 13, 2019. <http://www.jpost.com/Arab-Israeli-Conflict/Gaza-doctor-sues-Israel-for-killing-his-family-484203>.

²¹ Barrows-Friedman, Nora. "Remembering Mamoun, Killed by an Israeli Missile as He Played Football." The Electronic Intifada. February 12, 2017. Accessed June 13, 2019. <https://electronicintifada.net/content/remembering-mamoun-killed-israeli-missile-he-played-football/11434>.

²² Cortellessa, Eric. "IDF Says Palestinian Boy Was Killed by Mistake." The Times of Israel. Accessed June 13, 2019. <http://www.timesofisrael.com/idf-says-palestinian-boy-was-killed-by-mistake/>.

forgiveness for killing them.”²³ Each of these accidents serves to further the project of Israeli ethnic cleansing.²⁴ Much like the violence of 1948 that prompted Palestinians fleeing from their homes, these seemingly unconnected mistakes make up a pattern of instilling fear and exacerbating Palestinian precarity.

Error in these instances is defined as the technical discerning of signal from noise. In information theory, the content of communication is defined by mathematical function, the statistical measure of entropy, of system disorder or degeneration. In other words, there is an expectation of error. Communication is a concept that depends on both signal and noise, with meaningful information to be discerned in relation to irrelevant or flawed information. Therefore, technical and mathematical errors are blamed for the deaths of the Palestinians rather than human error or disregard. However, entropy is intrinsic to communication systems. Therefore, error is not an aberration of the system, but merely a part of the process of feedback; errors will continue to present themselves and be acted upon. Gil Hochberg explains that the relationship between noise and information is intrinsic to Israeli surveillance of Palestinians. Particularly, he argues aerial visualizations of drones produce a new mode of vision that renders “those who are subjected to live

²³ "Regrets but Never an Apology: When the IDF Makes 'mistakes'." 972 Magazine. September 22, 2015. Accessed June 13, 2019. <https://972mag.com/regrets-but-never-an-apology-when-the-idf-makes-mistakes/111917/>.

²⁴ The claim of error in military operations is not specific to the Israeli Defense Forces. For example, U.S. drone strikes killed Yemeni-American Anwar al-Awlaqi, his sixteen-year-old son Abdulrahman, and his eight-year-old daughter Nawar in three separate incidents. Murders of noncombatants and children are often cast as casualties of war. The mystification of black-box drone operations reinforces popular beliefs on accuracy, as Iván Char-Lopez argues. However, drones and other modern instruments of war are not any more accurate than more “analogue” weapons. I flag IDF operations in this section as unique due to the project of Israeli ethno-religious purity. The aim of the U.S. in Yemen is not genocide but imperial influence.

under the drones [as] completely invisible despite their hypervisibility.”²⁵ In other words, Palestinian bodies are simultaneously understood as information and noise to the IDF, both combatant and casualty.

Therefore, glitches, error, and accidents causing unexpected breaks in the system must be understood as somewhere between design and accident, embedded in a system yet precariously oriented towards it.²⁶ As Jasbir Puar asks in relation to wartime mutilations in Gaza, “Indebted to what structure does the accident labor?”²⁷ Errors are central to settler-colonialism even as they are cast as undesirable and aberrant side effects of standard operations. In cybernetic systems errors are resolved through the process of feedback, when outputs become inputs in order to self-regulate cause and effect. However, there is little evidence to show that the IDF implements any type of feedback in resolving the errors that lead to Palestinian death. This is because the system of Israeli settler-colonialism aims to erase Palestinians; Eve Tuck and K. Wayne Yang define settler-colonialism as a structure that requires “a mode of total appropriation of Indigenous life and land” in which “settlers make Indigenous land their new home and source of capital.”²⁸ Therefore, using the term “error” to describe incursions that lead to Palestinian death, like in the discourse surrounding the murder of Sajadiyya, elides the strategic discursive and epistemological maneuvers needed in order to make error a possibility. Puar explains that terminology like collateral damage and accident

²⁵ Hochberg, Gil Z. *Visual Occupations: Violence and Visibility in a Conflict Zone*. Durham, NC: Duke University Press, 2015. Pg.166

²⁶ Grundell, Vendela. *Flow and Friction: On the Tactical Potential of Interfacing with Glitch Art*. Stockholm, Sweden: Art and Theory Publishing, 2016.

²⁷ Puar, Jasbir K. *The Right to Maim Debility, Capacity, Disability*. Durham: Duke University Press, 2017. Pg. 64

²⁸ Tuck, Eve and K. Wayne Yang. “Decolonization is not a metaphor” in *Decolonization: Indigeneity, Education & Society* 1:1, 2012. Pg. 5

discursively “disarticulates the effects of warfare from the perpetration of violence.”²⁹ In other words, human error and technical error are used to absolve responsibility, while the actions taken as a result of error work *towards* Israeli policies of ethnic cleansing. Therefore, it is inaccurate to think of Waze-facilitated errors as failures in Israeli operations. Rather, the terms “error”, “glitch”, “accident”, and “mistake” are merely rhetorical moves that allow Israel to continue enacting violence against Palestinians. These mistakes are not corrected through the technical process of feedback because the results do not contradict the aims of the settler-colonial system. The failures of the IDF to properly identify Qalandiya demonstrate the ways errors are central features of the settler-colonial project. These incidents make visible the logics and methods of genocide in creating statelessness and a class of killable people by illustrating the discrepancy between discourses of Israeli democracy and systemic “error” that subject Palestinians to premature death.

Sajadiyya’s death also raises the question of the ethics of crowd-sourced applications. The rhetoric around the sharing economy, where individuals are encouraged to rent out possessions to peers like cars, rides, homes, etc., is liberatory. In many ways the language borrows Marxist critique by putting a face on previously alienated labor. However, this labor is unregulated in the sharing economy and required from everyone in order for the system to work. Open Source Initiative board member Simon Phipps explains:

“Crowdsourcing describes the leveraging of the marginal interest and free time of a large group of people to complete a task that otherwise could not be

²⁹ Puar, Jasbir K. *The Right to Maim Debility, Capacity, Disability*. Durham: Duke University Press, 2017. Pg 128

economically completed. The result typically benefits the initiator hugely, without significantly compensating the participants.”³⁰

In the case of Waze, the labor expected of users is access to the global positioning system of a mobile device. Additionally, Waze relies on user input of information regarding roads, traffic, accidents, etc. The gamification of the application encourages trustworthiness of the information provided. Therefore, the gig economy disguises free labor with the benevolence of facilitating human interaction. However, Waze software, like any other, can be used in unintended ways. For example, Israeli students in 2014 demonstrated the vulnerabilities of crowd-sourced applications by falsely reporting road conditions and creating a traffic jam.³¹ The accidental encounters facilitated by Waze can be written over and fixed in code through the afore-mentioned process of feedback. For example, those IDF soldiers can add Qalandiya onto the user-generated map, or Waze can incorporate additional fail-safes for when the navigation system is asked to route to a location in Palestinian-controlled areas. The desire for profiting from data collection in a user-generated free mobile application works to make more accurate the data Waze collects on its users. This data is then used to provide in-application advertisements based on user locations. Waze also sells traffic and cartographic data. Essentially, free mobile applications like Waze make money from users’ unpaid labor and must make their content accurate in order to maximize profits. Accuracy for Waze is not simply about preventing accidental fatal encounters or to map capaciously for the sake of cartographic

³⁰ "Open Source and Crowdsourcing Are Not Synonyms." Open Source and Crowdsourcing Are Not Synonyms | Open Source Initiative. Accessed June 13, 2019. <https://opensource.org/node/831>.

³¹ "Israeli Students Spoof Waze App With Fake Traffic Jam." Popular Science. Accessed June 13, 2019. <http://www.popsoci.com/article/gadgets/israeli-students-spoof-waze-app-fake-traffic-jam>.

standards. Capital transforms global positioning system software's aims from accuracy to profit.

While there are systems in place to ensure information reporting is accurate and trustworthy, the idea of reporting information that is accurate is not questioned. In other words, if errors in a navigation system are blamed for the murder of Omar Sajadiyya, the *accuracies* of maps and navigation software can be blamed for deaths as well. Navigation applications that use satellite images, aerial photography, and geographic information onto a model of the earth blur civilian and military information and uses. While Waze is not a government navigation application, its use by IDF soldiers demonstrate what Adi Kuntsman and Rebecca Stein identify as digital militarism.³² Defined as Israeli occupation mediated through digital technology, the term gestures to new media's roots in both military and industry, and the inextricable nature of this alliance. Because of the disaggregated sources of information used by these applications, from browser's captcha responses to government satellite information, these technologies are imbricated and rely on the blurring between civilian and military, domestic and international.

Open Source Mapping

In response to navigation applications like Waze and Google Maps that provide limited information to Palestinians or rely on users to have access to 3G or wifi, various Palestinian individuals, companies, and non-governmental organizations have sought to establish alternative services. Palestinian cellular service provider Jawwal, for example,

³² Adi Kuntsman and Rebecca L. Stein, *Digital Militarism: Israel's Occupation in the Social Media Age* (2015)

provides real-time conditions for travel times through checkpoints.³³ This service is limited to Palestinians with Jawwal phones, is dependent on cellular data connection, and also incurs roaming and text message charges. Applications that are billed as alternatives to Waze include Azmeh (Arabic for “traffic”) and QalandiaApp. Basel Sader, the 20-year-old law student that developed English and Arabic- language Azmeh for iPhone and Android operating systems in 2015 explained: “This application can’t give [Palestinians] the freedom of movement but it can make things easier for them.”³⁴ These two applications feature user-submitted traffic conditions at Israeli checkpoints and are designed to run on slow networks. Within five months of its launch, 11,000 Azmeh users could find traffic data for 47 checkpoints.³⁵

In December 2017, *Wired Magazine* featured Maps.me as a step-by-step navigation application used by Palestinians that draws from open-source data and can be downloaded for offline use.³⁶ The Russian-owned Maps.me application is one of many services that use data from OpenStreetMap (OSM), including Wikipedia Overlay, Geocaching, and Apple Map Tiles.³⁷ OpenStreetMap is a collaborative, volunteer, free

³³ "Occupation Apps." Jacobin. Accessed June 13, 2019.

<https://www.jacobinmag.com/2015/03/occupation-apps-souri-palestine>.

³⁴ "New Apps Help Palestinians Navigate Israeli Checkpoints." News | Al Jazeera. November 18, 2015. Accessed June 13, 2019.

<http://www.aljazeera.com/news/2015/11/apps-palestinians-navigate-israeli-checkpoints-151118143027515.html>.

³⁵ "The Occupation? We Have an App for That." Middle East Eye. Accessed June 13, 2019. <http://www.middleeasteye.net/in-depth/features/occupation-we-have-app-1102764692>.

³⁶ Berger, Miriam. "When Waze Won't Help, Palestinians Make Their Own Maps." *Wired*. December 12, 2017. Accessed June 13, 2019.

<https://www.wired.com/story/palestine-jerusalem-mapping/>.

³⁷ "List of OSM-based Services." List of OSM-based Services - OpenStreetMap Wiki. Accessed June 13, 2019. https://wiki.openstreetmap.org/wiki/List_of_OSM-based_services.

and open project that creates editable maps. With two million editors and over four million users, the non-profit's collaborative mapping functions as an alternative to proprietary mapping in its open source model. Open source is characterized as "a pragmatic projection of the four software freedoms - to use, study, modify and distribute software for any purpose."³⁸ OSM geospatial data can be used freely. The project began in 2004 by British entrepreneur Steve Coast, envisioned as a sister project to Wikipedia, a free online collaborative encyclopedia that launched three years prior to much success. It followed several projects that aimed but failed to distribute free digital maps. OSM gained popularity during the 2010 Haiti earthquake relief efforts, as the data compiled by OSM users became the primary source of mapping resources for aid workers and displaced Haitians with refugee camps, closed roads, and destroyed buildings flagged on the map created in a mere two days. OSM's humanitarian efforts have since expanded, including working with organizations during Typhoon Haiyan in the Philippines in 2013 and the 2014 Ebola crisis in West Africa.

OpenStreetMap users input information from maps with expired copyright, landmarks from groups like the World Health Organization, archived maps from government agencies, and donated map data from companies like Amsterdam-based Automotive Navigation Data, aerial photography from Yahoo, and satellite imagery from Bing. Users also conduct ground surveys to build maps from scratch. The information provided by Maps.me and OpenStreetMap reflects the data inputted by users, not all of which is up to date. For example, the coffee shop in Ypsilanti, Michigan that I wrote

³⁸ "Open Source and Crowdsourcing Are Not Synonyms." Open Source and Crowdsourcing Are Not Synonyms | Open Source Initiative. Accessed June 13, 2019. <https://opensource.org/node/831>.

much of this chapter at does not exist on the Maps.me mobile application. Additionally, searching the desktop version of Maps.me for landmarks in Palestine comes with several complications, including guessing English transliterations for Arabic names. For example, Qalandiya is transliterated as Kalandia (Area B) on Maps.me. Then there is the issue of searching the Israel map or the Palestine map for landmarks, neither of which host the city Jerusalem.

In email interviews I conducted with various OSM Palestine contributors, users identified data quality as an issue. For example, much of the data contributed by humanitarian aid campaigns is quickly outdated because the users are only one-time contributors or casual users without extensive mapping experience. There are few local “power-mappers” that continually monitor the quality of information contributed to the OSM pages. One Israeli-identified contributor explained: “I am not aware of highly active PL [Palestine] mappers... I dare say that armchair Israeli mappers like myself have contributed far more to some areas of the WB [West Bank] than the locals.” The contributor identifies a lack of Palestinian mappers as a problem with OSM Palestine pages. However, the assertion that Israeli mappers have contributed more to mapping Palestine contrasts with OSM’s goal of highly localized mapping for local uses. Mappers without intimate knowledge of Palestinian villages then make assessments about what geospatial features are important enough to map. Quality control is a neutral term to define the subjective process of mapping.

The OSM Gaza Strip, Palestine WestBank, Palestine, and Palestine/ImportReports wiki pages and discussion pages provide insight into collaborators’ process in developing accurate maps, serving as logs of the various difficulties of

mapping Palestine. Notes include alerts to maps with public licenses, updates on organizations' support or trepidation for mapping Palestine, suggestions for asking people in Palestinian coffee shops to add landmarks to paper maps, and fund-raising to pay for full-color aerial photography. The logs also indicate the constant changing terrain of Israeli occupation. Users discuss updating information in a timely manner, with refugee camps taking on new names, settlements being cleared or expanded, and gates and crossings in the apartheid wall undergoing change.

Identifying important information is predicated on questions of audience, which many OSM users on the Palestine pages identified as humanitarian organizations. The Gaza OSM page opens with: "Wikiproject Gaza Strip is focused on rapidly increasing the level of mapping available in the area for humanitarian relief efforts and other purposes." In an email interview I conducted with OSM contributors to Palestine pages, one user explained his additions to the Gaza page as motivated by the desire "to help create a map base that could help with a reconstruction after the [2009] war." Therefore, many users work to synthesize data that would facilitate relief and reconstruction. With this aim as motivating many contributions to OSM Palestine pages, users are forced to make decisions about what information is relevant.

OSM contributors add data for a particular imagined audience, whether that is a global humanitarian public or the local Palestinian context. In adding information, contributors are also making decisions about what types of data are valued. One Israel-based contributor to OSM Palestine WestBank noted that local Palestinian users "do not mind tagging houses by resident's names. (e.g. John Doe's house, the house of Abu Ahmad, the house of Dr. etc etc)." The user further explained efforts to remove these data

points: “This would have been considered a privacy and be removed in other areas... They keep adding [resident information] en-masse via Maps.Me. It's a strange phenomena that I noticed in many arab [sic] countries and regions and not WB [West Bank]/Gaza specific.” Remote contributors to the Palestine pages might understand identifying information as bad edits from inexperienced users. However, this discrepancy in what information is deemed relevant or public knowledge—agricultural land use as opposed to family homes—indicates differing valuations of data. The tags contributed by Palestinian users can also be understood through Jason Farman’s concept of creative misuse, defined as “using a technology in a way in which it was never meant to be used, the results of which offer a thoroughly transformed view of the technology, its place in society, and future practices with the technology.”³⁹ Because the way Palestinian users contribute to OSM seems inappropriate for moderators and other European and American users, edits from Palestinians raise questions challenging paternalism and assumptions about what Palestinians need from maps. The data valuations are made by non-Palestinian users that disregard space-making as a social practice. Farman explains that “most locative media projects simply understand a location as a point on a game board”⁴⁰ despite the political, performative, and embodied implications of paths of movement.

Maps are symbolic models of space that also act as authored views of a landscape. Mapmaking involves the selection and suppression of geographic features. Jean Christophe Plantin explains that OSM allows for cartography to “appear less like an opaque process only known by credentialed cartographers. [OSM] made salient the steps

³⁹ Farman, Jason. *The Mobile Story: Narrative Practices with Locative Technologies*. New York: Routledge, 2014.

⁴⁰ Farman, Jason. *The Mobile Story: Narrative Practices with Locative Technologies*. New York: Routledge, 2014.

of mapmaking from data collection to editing to online publication.”⁴¹ The logs for the Gaza OSM wiki include debates around distinguishing information from noise:

“there are some tracks that go over landfill, farmyards, roads and buildings that seem to be tank traces, im taging [sic] them as ~~|highway=track|tracktype=grade3~~
~~|note=seems to be tank tracks|~~”⁴²

“I believe we should only be showing permanent features and that tank tracks are not permanent. Shell holes might be if they are big enough (many became fishing ponds in Vietnam) but the ones in Gaza don't seem to be that big.”⁴³

The permanence of Israeli violence is questioned in these conversations. Contributors make decisions based on what temporary formations would be relevant to humanitarian relief efforts, and what temporary formations are too ephemeral to document. However, mapping Palestinian land is de facto mapping temporary formations of sovereignty that exist in relation to settler-colonialism. In other words, any map of Palestine reflects (constantly changing) Israeli violence, whether or not tank tracks or shell holes are marked. In this instance, the on-the-ground realities of settler-colonialism cannot be reconciled with the ideology of mapping as control, as stabilizing formations of sovereignty. Therefore, contributors are faced with the paradoxical problem of identifying enduring landmarks in a space that is subject to constant change. The OSM

⁴¹ Jean Christophe Plantin, “Google Maps as Cartographic Infrastructure” *International Journal of Communication* 12 (2018), 489-506

⁴² "Talk:WikiProject Gaza Strip." *Talk:WikiProject Gaza Strip - OpenStreetMap Wiki*. Accessed June 14, 2019.

https://wiki.openstreetmap.org/wiki/Talk:WikiProject_Gaza_Strip.

⁴³ "Talk:WikiProject Gaza Strip." *Talk:WikiProject Gaza Strip - OpenStreetMap Wiki*. Accessed June 14, 2019.

https://wiki.openstreetmap.org/wiki/Talk:WikiProject_Gaza_Strip.

wiki page titled “Proposed features/temporary” advises users to tag temporary changes like traffic restrictions during construction work in the following manner:

“Leave the existing tags untouched. Create another tag named temporary: followed by the name of the tag of which you want to change the value, and set the value as needed. Add temporary:date_on=*, temporary:time_on=*, temporary:date_off=* and temporary:time_off=* to the best of your knowledge.”⁴⁴

Temporary formations are written over more permanent fixtures. For example, a temporary decrease in the speed limit does not replace the original information. Rather, the decreased speed becomes a point of information that supersedes previous information for a particular length of time. This system for tagging temporary formations works best if changes can be predicted, and if temporary features can be distinguished from permanent ones. However, there is almost no permanence in the context of Palestine, so contributors are required to attend to the land’s constant change.

The moderator of talk-ps addresses the need to continuously update maps of Palestine:

“Mapping data is nothing unless it's used and updated. The geography of Palestine changes rapidly, and knowledge of those changes is crucial... The best way to maintain, promote and use open geographic data has proven to be through a

⁴⁴ "Proposed Features/temporary." Proposed Features/temporary - OpenStreetMap Wiki. Accessed June 14, 2019. https://wiki.openstreetmap.org/wiki/Proposed_features/temporary.

strong community. We are the beginnings of that community in Palestine .. please be welcome to join talk-ps and work for a Free and Open Palestine.”⁴⁵

Open source geography for Palestine is deployed metonymically with a free Palestine. In many ways, this discursive move echoes techno-utopian ideals around free data and open access. In 2009, World Wide Web inventor Tim Berners Lee issued a call for open raw data: “If people put data on to the Web—government data, scientific data, community data, whatever it is—it will be used by people to do wonderful things in ways that they never could have imagined.” He then told the story of a Zanesville, Ohio lawyer who used open data to argue that access to water was determined along racial lines in the area. A judge ordered the county to pay residents of color \$10.9 million for discrimination. Arguments around the merit of open access are leveraged in debates regarding fair use as well, and the discourse of free data and content availability echoes neoliberal rhetoric around free markets; more information and more businesses will foster competition and innovation, and more data spurs more humanitarian projects. For the talk-ps moderator, however, more data is predicated on more engagement with the daily formations of Israeli settler-colonialism and Palestinian resistance. Sana Murrani describes the value of mapping temporary formations: “The use of territorial mappings as an illustration of the continual, liminal, and ephemeral process has been employed as a tool to expose one liminal network.”⁴⁶ A reparative reading of techno-utopian rhetoric around digital maps indicates that for many OSM contributors, mapping functions as a way to document

⁴⁵ [Talk-ps] OpenStreetMap Palestine -- Discussion List -- Map the Future. Accessed June 14, 2019. <https://lists.openstreetmap.org/pipermail/talk-ps/2009-April/000000.html>.

⁴⁶ Sana Murrani, “Baghdad’s Thirdspace: Between liminality, anti-structures and territorial mappings” in *Cultural Dynamics* 28:2 (2016), 189-210

Israeli tactics of control. Therefore, the OSM Palestine maps draw connections between physical structures and sociopolitical and cultural formations.⁴⁷

Arguing that OSM maps act as documentation of Israeli control to facilitate resistance depends on circulation as determining the productive use of maps. What would change about these maps if the IDF were using OSM data to conduct military excursions? In other words, is the ethical orientation of an OSM contributor and a Waze user to the data contributed only different because different parties are using the data? In an interview with a member of the Humanitarian OpenStreetMap team (HOTOSM), I asked about precautions the group takes to ensure data is not used for anything other than humanitarian work:

“We are committed to the principles of free and open-source information and creating data for the use of our humanitarian partners. Typically the data we upload to OpenStreetMap is such that is primarily useful by these partners as much of it has been requested by our humanitarian partners... we can't really know what it's been used for, though I'm not aware of any use of it for negative purposes, to date.”

The language used to describe OSM's relationship to the data its users produce echo the legislative strategy of the sharing economy. Tarleton Gillespie explains that companies like YouTube, Uber, and Airbnb define their services as a platform for transactions and interactions. Therefore, the platforms are “rewarded for facilitating expression but not

⁴⁷ Murrani draws on Eyal Weizman, “The politics of verticality: the West Bank as an architectural construction” in *Territories: Islands, Camps, and other States of Utopia* (2003), 65-118.

liable for its excesses.”⁴⁸ Similarly, OSM produces data for humanitarian partners but does not claim liability for the ways the information is used. There is no clear way to hold users of open source data accountable, as OSM information is by definition free for anyone to use. The problem of authorial intent and accountability can be understood through Roland Barthes’ assertion that “a text’s unity lies not in its origins but its destination.” Barthes makes a case for literary criticism to acknowledge readerly interpretation as essential to meaning-making rather than simply relying on the author’s intent. Both the crowd-sourcing and open-sourcing of OSM data occlude authorial intent in production and dissemination. The reproductive potential of OSM data fills the information with uncertain promise. The data is understood as an abstracted raw material to be transformed by multiple users.

To couch this theoretical analysis of accountability and open source in an example, let us analyze the following entry on the OSM Gaza wiki:

“Possible to identify agricultural land use from the imagery .. someone could put in outlines for fields, olive groves, greenhouses. Basically make maximum use of the imagery.”⁴⁹

In this conversation, OSM users are suggesting what geographical formations in purchased aerial photography should be converted into information points. It is unclear as to what use identifying agriculture would serve to the humanitarian groups that are presumably using this data. As John Seely Brown and Paul Duguid critique the culture of producing information without regard to social context in *The Social Life of Information*:

⁴⁸ Tarleton Gillespie, “The Politics of Platforms.” *New Media and Society* 12. (2010), 347-364.

⁴⁹ “WikiProject Gaza Strip.” WikiProject Gaza Strip - OpenStreetMap Wiki. Accessed June 14, 2019. https://wiki.openstreetmap.org/wiki/WikiProject_Gaza_Strip.

“Problems with information? Add more.”⁵⁰ In fact, the mapping of land use recalls Ottoman land reforms of 1858 that were later leveraged in the colonization of Palestine. Enacted for tax purposes and to increase Ottoman control during the fall of the empire, Ottoman administrators restructured the norms of land ownership by mapping cultivation.⁵¹ After the establishment of Israel, the state took many of these Ottoman land laws and reformulated them in order to acquire more land. For example, Israeli law required 50% of the land in a parcel to be cultivated in order for a Palestinian to declare ownership. If a parcel had less than 50% cultivation (as determined by the Israeli state) the land became Israeli government property.⁵² Additionally, Palestinian agriculture continues to be compromised through Israeli violence. Olive groves are torched, and water lines are re-routed from Palestinian farmers that rely on agriculture for livelihood. This case study raises questions around both circulation and production. Particularly, mapping Palestinian land use begs an analysis on the ways mapping replicates colonial forms of power and knowledge. In many ways, the question of knowledge production that attends to the precarity of Palestine is predicated on circulation, unpredictable factors for an open-source data set. In other words, information type, usage, and audience are determining factors of mapping either destabilizing or reinforcing colonial control.

⁵⁰ John Seely Brown and Paul Duguid, *The Social Life of Information*, Harvard Business School Press (2000), 14.

⁵¹ Administrators determined what land was cultivated in order to register ownership, not taking into consideration arability or local understandings of property. The laws were often misapplied with entire village plots being owned by one individual. This created a powerful land owning elite that supplanted local leadership. Registered owners were allowed to sell land without consent of those that actually cultivated or lived on the land. Therefore, much land was sold to European Jews who were seeking to make Aliyah.

⁵² "Under the Guise of Legality." B'Tselem. Accessed June 14, 2019.

https://www.btselem.org/publications/summaries/201203_under_the_guise_of_legality.

Un/mapping Palestine

This chapter analyzes two new media mapping projects of Palestine to understand the work both geographical erasure and mapping can do given the precarity of Palestinian life. The murder of Omar Sajadiyya due to navigational error indicates the ambivalence of erasure as simultaneously creating a disposable class of people subject to premature death *and* allowing for other ways of belonging to supersede mapping and inscription. The unmapped presence of Qalandiya forces itself into the colonial imaginary, challenging the Israeli myth of Palestine as “a land without a people for a people without a land” and illustrating the limitations of settler-colonial understandings of space. Qalandiya acts as an unexpected reminder of the limitations of genocide, that New Imperial understandings of identity and nationhood cannot account for the products of erasure like the refugee camp.

Unmapping is undoubtedly a method of settler-colonial erasure. A type of imagined geography characterized by the literal unwriting of sovereignty, unmapping identifies inscription and mapping as ultimate indicators of indigenous presence. However, unmapping also identifies the limitations of erasure by presenting the unexpected results of disappearing Palestine. Though creating conditions of precarity, erasure allows for alternative modes of belonging. Palestine exists outside of the map, outside of common-sense understandings of space. It is these gestures to alternative conceptions of identity, nationhood, and indigeneity that makes possible to supplement incorporative methods of decolonial futurity. Palestine becomes untethered to United Nations resolutions establishing borders to Israeli imperialism, untethered to the material repercussions of settlement-building, untethered to the geography of the apartheid wall.

Rather, we can look to these limitations of Palestinian futurity as exposing the logics of settler-colonialism. Particularly, the Israeli project of ethnic cleansing denies the existence of indigenous Palestinians while creating over seven million stateless subjects. The contradictions of erasure are not solved, merely managed. These gaps and ruptures are spaces where the logics of genocide can be contested and circumvented.

Alternatively, the collaborative mapping project of OpenStreetMaps provides transparency in the process of determining data points for maps. OSM demonstrates an attention to audience that attempts to make mapping an accountable process. However, the open source nature of OSM mapping forecloses accountability in allowing free use. Additionally, free use and constant updates to Palestine map data further techno-utopian myths that more data is better. This techno-utopianism inadvertently replicates colonial understandings of valuable information, as demonstrated through the OSM logs regarding identifying land use from aerial photography. However, Jason Farman argues that “mobile media are location-aware and context-specific in ways that other media are not.” Digital humanities mapping projects like Heidi Rae Cooley’s *Horseshoe* show that mobile media *can* attune to the sociopolitical histories of space, allowed for by the intrinsic site-specificity of navigation and mapping applications. My reading of Waze and OpenStreetMaps demonstrates the indeterminacy of this relationship between history and place. The indeterminacy and ephemerality of digital maps models Palestine as a deterritorialized zone—a territory rather than a nation, a strip rather than a state.

Mapping has historically been a central issue within Palestinian and Palestine solidarity groups. Advocating for a Palestinian state on pre-1948, 1948, or 1967 borders divides various activists working towards sovereignty. For example, in 2012, Palestinian

Authority leader Mahmoud Abbas successfully lobbied the United Nations General Assembly to upgrade the status of Palestinians from a “permanent observer” status to a “non-member state” based on pre-1967 ceasefire borders. The vote allowed Palestinian Authority representatives to be part of General Assembly debates. The non-member state status also greatly increased the chances of Palestinian acceptance to the International Criminal Court, where Palestinians could bring charges against Israel for war crimes and crimes against humanity, a process only recognized states can engage in. Many criticized the vote, including Hamas leader Ismael Haniyeh: “Our Palestinian people do not beg for a state ... States are not built upon UN resolutions. States liberate their land and establish their entities.”⁵³ The sovereignty of Palestinians is intrinsically tied to what territory is claimed for a future state. The desire to map Palestine onto particular borders to make it legible for international actors or states complicates the potential of decolonization. As Haniyeh’s statement argues, focusing on statehood and borders as the end-all-be-all of indigenous sovereignty reinscribes the logics of New Imperial understandings of belonging and postcolonial forms of accountability. The irony of appealing to the United Nations, the very international organization that created Israel, for Palestinian statehood underscores the need for alternative avenues in pursuing sovereignty. Palestinian existence becomes completely dependent on the existence of a Palestinian state. Contrastingly, this chapter works to contest the colonial uses of maps and borders by opening up space to think about alternative modes of asserting Palestinian indigeneity without disavowing the importance of land and sovereignty.

⁵³ Lyon, Alistair. "Abbas Stakes Palestinian Claim to State at U.N." Reuters. September 24, 2011. Accessed June 14, 2019. <https://www.reuters.com/article/us-palestinians-israel-un-idUSTRE78H28J20110924>.

CHAPTER V

Terror Kites and Balloon Bombs: High/ Low Tech Palestine

Abstract

Palestinians in the Gaza Strip released incendiary balloons and kites into Israel in 2018. These devices are simple, consisting of a burning kite tail or an incendiary packet that ignites shrubbery upon landing. The kites and balloons have been a cause for alarm for the Israeli public, starting numerous wildfires. This chapter reads incendiary kites and balloons as media, interfacing objects that liaise between Gazans and Israelis to restructure sociopolitical relations. These objects force Palestine in the everyday life of Israelis, particularly those living close to Gaza. In addition, the kites and balloons serve to alter Israel's offensive role against a besieged Gaza. Framing kites and balloons as low-tech versus the drones, biometric technology, and missiles of a highly technologized Israel follows the dyad of colonized/ colonizer. However, in a parallel move to the ways kites and balloons destabilize Israel's military supremacy, this essay works to destabilize the colonized/ colonizer and low tech/ high tech dyads by mapping the disjunctures and fault lines of settler-colonialism. The kites and balloons perform theatrical gestures of resistance that insist the possibility—or inevitability—of alternative settler/native relationality.

This chapter centers on the 2018 deployment of incendiary balloons and kites by Palestinians in Gaza. Lightweight payloads are attached to balloons like incense sticks that ignite packets of fuel. Kites with tails lit on fire are also released into Israel. These devices rely on the wind to make their way into Israeli border towns and have caused fires across Israel, destroying over seven thousand acres of land. Israeli national security has retaliated in exacting collective punishment of Palestinians, including limiting the already anorexic supply of gas into Gaza under Israeli siege, threatening to cut off supplies of helium used for magnetic resonance imaging and presumably used to inflate incendiary balloons, and deploying snipers to shoot protesters. The kites and balloons have entered into Israeli collective consciousness as a looming threat to civilian life dubbed “kitetifada.” *Times of Israel* reports that as of June 2018, kites and balloons have burned 10,000 dunams of parks and nature reserves, 5,000 dunams of farmland, and 2,500 dunams of Jewish National Fund forests (1 dunam= 900 meters²). Israeli Prime Minister Benjamin Netanyahu has announced he will compensate farmers NIS 5 million, about \$1.5 million USD.¹ These funds will be reallocated from funding meant for the Palestinian Authority in the West Bank, following the trend of Palestinian collective punishment by Israel.

Incendiary kites and balloons have been released from Gaza following the 2018 Great March of Return.² In the six months following the Land Day protests on March 30th, 141 Palestinians have been killed during demonstrations and 9,970 have been

¹ Judah Ari Gross, “[Beyond kites: ‘Fire balloons’ increasingly used to set southern Israel ablaze](#)” *The Times of Israel* (4 June 2018)

² Great March of Return refers to six weeks of protests organized by Gazans that mark Land Day, a commemoration of Israel’s expropriation of thousands of dunams of Palestinian land in 1976. The plan to annex Palestinian land was met by protest that resulted in hundreds of injuries and arrests.

injured.³ The balloons and kites are billed by Gazans as a response to Israel's violence. This essay examines these launches within the context of technological development in Palestine and Israel. The juxtaposition of low-tech balloons and kites against high-tech drones mirrors the dyad of colonized/ colonizer. However, I argue that the discursive work incendiary balloons and kites perform disrupts the binary of low tech/ high tech and colonized/ colonizer to challenge or threaten the logics of settler-colonialism. I read kites and balloons as media, objects that mediate the relationship between Gazans and Israel that have sociopolitical consequences for both parties. These aerial explosives perform a number of interventions, including: transforming the terrain of Israel; challenging colonial aims of mastering geography; penetrating Israeli high tech defense; asserting Palestinian right to violent resistance; illustrating the persistence of Palestinian grassroots organizing; and gesturing to the Palestinian body as a demographic threat against the Jewish purity of Israel. In sum, the discursive and performative work of incendiary balloons and kites challenge Israeli efforts to quell Palestinian resistance. The low-tech aerial explosives open up possibilities for future Palestinian activism, creating fractures in the settler state.

This chapter uses a variety of methods to understand the implications of incendiary kite and balloon launches from Gaza. Primarily, I read the kite and balloon launches as texts to draw out the discursive work of the deployments in disrupting Israeli settler-colonialism. This method occasionally requires visual analysis of images and a discourse analysis of blogs and articles. As part of this work, I perused English-language news sites and blogs that feature Palestine and Israel news for a variety of audiences,

³ Mohammad Zaanoun, "[Great Mach of Return: Six months of protests in the Gaza Strip](#)" *Al Jazeera English* (27 September 2018)

including: *Times of Israel*, *Haaretz*, *The Jerusalem Post*, *YNet*, *The Telegraph*, *Palestine Monitor*, *Ma'an News*, *Middle East Eye*, and *Electronic Intifada*. I monitored, read, and analyzed over 70 articles from June 2018 to January 2019 mentioning incendiary kites and balloons, and focused on articles that give central focus to these aerial devices. Using these articles as a discursive archive allows us to consider the ways Palestinians and Israelis make sense of low-tech weapons. Rather than simply looking at the discourse around kite and balloon launches, however, this essay takes into consideration the implications of Palestinian protest. Kites and balloons are read against the technologization of Israeli occupation characterized by biometric checkpoints, high speed rails connecting settlements, and drone surveillance in order to establish the dyad of colonizer/colonized and high tech/ low tech.



Figure 21: Incendiary Balloons on a Cut Out Drone (Ashraf Amra, APA images [Electronic Intifada](#) 2 November 2018)



Figure 22: Incendiary kites in Gaza (photo credit: IDF SPOKESMAN'S UNIT [The Jerusalem Post](#) 14 June 2018)

Historical Uses of Kites and Balloons in Warfare

Of the many news articles covering the release of incendiary kites and balloons from Gaza, few, if any, historicize these low-tech weapons within the context of warfare. Balloons have a long history in warfare, originating with Napoleon Bonaparte's aerial balloon armada established in 1789. The following provides a brief overview of ballooning in warfare to demonstrate the various functions of these aerial devices: 1) for remote ballistic and incendiary attacks, 2) enemy observation, 3) defensive shields, 4) obfuscation, and 5) resource and propaganda transport.⁴ The long history of balloons, kites, and other aerial devices in warfare provides a model for understanding the current

⁴ See Ross Allen Coen, *Fu-Go: The Curious History of Japan's Balloon Bomb Attack on America* and John Christopher, *Balloons at War: Gasbags, Flying Bombs and Cold War Secrets*

airial deployment coming out of Gaza. While contemporarily considered low-tech, balloons and kites have a recent *successful* history in warfare. The juxtaposition of low-tech and high-tech in the images that are centered in this chapter are then complicated in a manner similar to digital studies' critique of techno-utopian claims regarding new media and technologies as intrinsically more accurate, faster, and powerful than "old media." Rather, the contrast of drones and balloons, missiles and kites, etc. indicate the performative power of low-tech devices against the Israeli highly-technologized settler state.

Most familiar to the public is the widespread use of balloons by Japan in World War II.⁵ The balloons flew from Japan into the United States, Canada, and even Mexico. These devices, codenamed Fu Go from the Japanese "fusen" or fire and "go" as a numerical counter, were manufactured in Japan with konjac tuber paste glue and kozo paper, the same material used to make washi. Initially, discoveries of Fu Go were barely noted, as the devices were thought to be weather balloons; the first fleets did not carry incendiary devices but radiosondes sending back flight and atmospheric information. However, later devices released several kilograms of incendiary bombs after their flights, detonated via an internal timer. From 1944- to August 1945, three hundred incendiary balloons were found in North America, though about 9,000 were released from Japan. There are thought to be several undiscovered, still-live devices in rural parts of North

⁵ Various militaries have used ballooning in warfare, including: both Northern and Southern armies in the United States Civil War; the U.S. in Cuba during the Spanish-American War; France during the Franco-Prussian War, in North Vietnam, in Madagascar, in China, and in Morocco; Britain in various colonies in Africa, including in the Boer War; and Germany, Russia, Spain, Italy, Holland, Belgium, Denmark, Austria, Bulgaria, Sweden, Switzerland, China, and Japan. Militaries used ballooning during colonial occupations and imperialist ventures.

America; in October 2014, forestry workers in British Columbia discovered the payload device of a Fu Go in the town of Lumby.⁶

The U.S. government policy towards the Fu Go was to ignore the devices.⁷ Vannevar Bush, head of the U.S. Office of Scientific Research and Development, whose earlier work included the engineering analog computers, decided that there was no cost-effective way to detect and counter Fu Go.⁸ Rather, the low percentage of Fu Go survival of the trans-Pacific flight and subsequent success rate of payload detonation meant that these devices could be mostly ignored—unless their payload changed from small incendiary devices to biological weapons. Therefore, the Fu Go were meticulously examined, but were not deemed to be threatening enough to spend many resources on.

Besides carrying incendiary payloads, balloons in warfare have also served surveillance purposes. For example, in the U.S. Civil War, balloons were used as a way to observe enemy formations, with balloonists reporting back to military officials. These balloons also become one of the early forms of aerial photography in warfare, as photographers hauled equipment into balloon baskets so generals could see enemy

⁶ Linton Weeks, "[Beware of Japanese Balloon Bombs](#)" *National Public Radio* (20 January 2015)

⁷ Once the U.S. government realized the weaponized balloons were of Japanese origins, defense officials established a policy that civilians were not to be told about the existence of these incendiary devices. The fear was that information on the successful flights and detonations would make its way back to Japan. There was an additional suspicion that these balloons could carry biological weapons like anthrax or foot-mouth disease, and officials feared a panic would spread if these possibilities were known to civilians. Because of this silence, on May 5, 1945, Elsie Mitchell, the five-month pregnant wife of Reverend Archie Mitchell, and five teenage children of the reverend's congregation, Dick Patzke, Joan Patzke, Jay Gifford, Edward Engen, and Sherman Shoemaker were killed in Bly, Oregon after discovering a balloon bomb during a picnic—the only domestic civilian victims of World War II in the contiguous United States.

⁸ Ross Coen, *Fu-Go: The Curious History of Japan's Balloon Bomb Attack on America*, University of Nebraska Press (1 November 2014)

formations for themselves. Like its successor drone photography, balloon photography employs a detached viewpoint, a “more lethal and less human” perspective of the enemy. John Christopher reflects on memoirs of World War I balloonists: “...there could be something quite surreal about the experience, to be suspended above the vista of devastation but strangely aloof and detached from it.”⁹ At the same time, these balloonists were at risk of being targeted by enemy fire, or being at the mercy of the wind that could push them towards the approaching militaries. Nevertheless, it is the *perspective* of the balloon that implies detachment and power. In fact, early military strategists felt uneasy about using balloons to survey the enemy, finding the technology to be an unfair advantage.

Balloons have also been used for defensive measures. Before the end of World War I, the balloon apron extended over London and across various sites in England following Hitler’s bombing of Guernica. Barrage balloons were placed at intervals to dissuade low-flying attacks, as balloon cables were dangerous for aircraft. In 1940, Winston Churchill established the Free Balloon Barrage, a fleet of rubberized balloons with hanging piano wire and a live bomb to ensure that enemy aircraft would be destroyed by the balloons. The United States also joined with the Joint Barrage Balloon Committee with balloons manufactured by Goodyear and Firestone, and gas supplied through Shell. These defensive balloons served to stop some German attacks, particularly from “doodlebug” V-1 flying bombs.

Another example of defensive use of balloons is the infamous Roswell Incident of 1949. Declassified documents have shown that the alien aircraft scare was actually a

⁹ John Christopher, *Balloons At War: Gasbags, Flying bombs, and Cold War Secrets*, Tempus (1 August 2004)

project codenamed “Mogul” in which high altitude balloons were used to listen for detonations across the world using low frequency microphones.

Another usage of balloons was to confuse monitoring systems. For example, when Allied forces invaded Northern France through Normandy, a diversionary “phantom army” was assembled in Pas-de-calais using radio traffic jamming and inflatable dummy tanks, anti-tank guns, lorries, and landing crafts. This diversion allowed the allies to successfully execute D-Day. Some years earlier, the British had also engaged in Operation Peardrop. Aluminized balloons were used to show up on radar with similar signals to that of a submarine. This diversion was used to allow for real submarines to escape enemy detection, just like chaff used to fill radar systems with false signals from airborne strips of aluminum foil. Similarly, Fu Go balloons, initially thought to be undetectable to radar, appeared on radar at a distance of up to 25 miles but looked similar to aircraft signals. Finally, decoy booby-trapped unmanned balloons were used by British against Germans to take out aircraft attempting to down balloons.

Balloons have also been used to carry human spies, pigeons, and propoganda. Kites and balloons have been used to carry secret agents into enemy territory since at least 1905, when the British developed the man-carrying kite. Agents traveled to enemy territory to infiltrate and send back intelligence. Balloons were also used to release carrier pigeons that could retrieve vital information for the British. The United States, Britain, South Korea, and North Korea have all used balloons to spread propoganda leaflets. And in 1961 balloons were used to send food to China, following the use of balloons to transport resources during the Berlin Airlift.

Several programs in development recently demonstrate the continued use of balloons. In Spring 2018, Purdue University and Leo Aerospace LLC announced the development of using hot air balloons to deploy micro satellites for purposes of gathering scientific data or radio relay. These “rockoons” allow for low-cost satellites to be launched in space as larger, costly satellites are given priority for traditional launches. A representative from Leo explained, “Our goal is to give people access to space.”¹⁰ Additionally, several wireless providers are working on providing airborne Internet. All infrastructure would be located in the air, allowing for air-to-air, air-to-surface, and surface-to-surface communication even if local grounded infrastructure is unavailable.¹¹ Blimps (a type of barrage balloon), unmanned aircraft, and manned aircraft have all been proposed to house this airborne infrastructure. Both rockoons and airborne Internet are not new ideas; the former was developed in the 1950s and the latter was proposed in the late 1990s by NASA.

This overview of the history of balloons and kites serves as a reminder that “low tech” was always once “high tech” and that these categories can bleed into one another. Following the work of Jonathan Sterne, this section asserts that new technologies are not necessarily faster or more reliable.¹² Though bomb-carrying balloons were made redundant by the hydrogen bomb, the persistence of the balloon despite the aeroplane’s prevalence demonstrates that some technologies persist while others become viewed as

¹⁰ Purdue News Service. "Rockoons' May Soon Make Launching Satellites into Space More Accessible." Purdue University News. Accessed June 13, 2019. <https://www.purdue.edu/newsroom/releases/2018/Q2/rockoons-may-soon-make-launching-satellites-into-space-more-accessible.html>.

¹¹ "Google's Loon Brings Internet-by-balloon to Kenya." BBC News. July 19, 2018. Accessed June 13, 2019. <https://www.bbc.com/news/technology-44886803>.

¹² Sterne, Jonathan. *MP3: The Meaning of a Format*. Durham: Duke University Press, 2012.

outdated. Aerial device deployment Palestinians in Gaza follows a long history of ballooning, an early iteration of unmanned aerial vehicles. The dyad of high tech/ low tech is in itself untenable, as new tech borrows from old tech and vice versa.

I delineate the many uses of balloons and kites to remind the reader that low tech resistance is not crude or rudimentary. Within postcolonial studies, there is a suspicion of reading the third world from a perspective that assumes lack. Unfortunately, digital studies oftentimes use development discourse to understand information communications technologies outside of the U.S., Canada, and Western Europe. Lily Irani, et. al. argue for a more complex understanding of computing for developing nations that centers histories of colonialism.¹³ I contend that media studies also needs to stray from thinking through all technological development in relation to U.S. and European development. Rather than finding that other nations need to “catch up” to Europe, the United States, or even Israel, we must take seriously a subaltern history of technological innovation. Spaces like Gaza, the Yabacon Valley in Lagos, Shenzhen in China are innovative and tech-savvy *because of and despite* their histories.

Kites and Balloons in Palestine

On March 30th, 2018 Palestinians marked Land Day on the anniversary of 1976 slaying of six Palestinian citizens of Israel that were protesting Israeli land seizures. In Gaza, Palestinian activists planned six weeks of protest by encouraging families to move into tent cities close to the militarized border where Palestinians are at risk of being shot with live ammunition, rubber bullets, and tear gas. These protests were met with an escalation of Israeli violence. Over one hundred snipers were deployed to the Gaza

¹³ Irani, Lily, et al. “Postcolonial Computing: A Lens on Design and Development.” Conference: Computer Human Interaction (2010).

border with permission to fire. The first day of protests ended for Gazans with over 1,400 injuries and 17 deaths. Because of the deadly force used, the initial six week timeline of the Great March of Return became six months and counting.

Reports of incendiary kites and balloons found in Israeli border towns surfaced in June and have continued through 2019. A few balloons have also been found in West Jerusalem and settlements in the West Bank. In response, Israeli Defense Forces have bombed vehicles and homes allegedly belonging to kite flyers in Gaza. Snipers have injured and killed protesters, and drone-launched missiles have been deployed to intercept balloons and kites. The aerial devices deployed from Gaza and Israeli response have led to an upsurge in tensions between the Israeli government and Gaza's governing political party Hamas, though there is little evidence to suggest that Hamas is behind the kite and balloon launches. Israel has threatened an increase in violent responses to the incendiary kites and balloons as well as tightening restrictions on fuel and helium entering Gaza.

The kites and balloons set fires to Israeli land through simple mechanisms. An information video shared on Israeli news site *YNet* shows a single incendiary balloon landing on shrubbery in a rural area.¹⁴ A few moments after landing, a small packet is lit by what appears to be incense. The long stick smokes, but as it burns closer to the folded fuel-soaked packet, it ignites and sets the surrounding shrubbery on fire. The blustering winds of the southern Naqab fan the flames and allow for more widespread damage. Other methods of ignition include mesh that holds burning fuel, grenades, flaming rags, and molotov cocktails attached to balloons. For incendiary kites, kite flyers either attach

¹⁴ Matan Tzuri, "[WATCH: How an incendiary balloon starts a fire](#)" *YNet* (12 August 2018)

payloads to or ignite the tail kite and release the entire device [See Figure 2]. These incendiary devices had caused over 500 fires in Israel from March -July 2018.¹⁵

The kite is not a static signifier for Palestinians. For years, the United Nations Relief and Works Agency for Palestinian Refugees in the Near East (UNRWA) has organized kite flying events with children in the West Bank and Gaza. In March 2018, students flew kites emblazoned with the message #DignityIsPriceless in an attempt to raise awareness regarding school closures due to UNRWA budget shortfalls. The film *Flying Paper* (2014) documents Gazan youth attempting to break the Guinness World Record of most kites flown. As one incendiary kite flyer explains, “Something from Gaza at least can finally cross borders.” Kite flying is a cross-generational leisure activity in Palestinian beach towns. Artists like Elia Suleiman have used balloon-mounted cameras, and Palestinian refugees in Lebanon at the Burj al-Shamali camp used similar devices to create aerial maps of the camp. *Haaretz* subtitles an article on Suleiman’s art: “Incendiary kites and balloons have been hitting the Gaza border as harbingers of destruction, but prior to being a weapon, they flew in Palestinian films as instruments of dreams and imagination.” These incendiary aerial devices too are an instrument of Palestinian dreams and imagination. A retaliatory tactic for decades of settlers burning Palestinian farmland and razing Bedouin homes, kite and balloon flying transform both the atmosphere and the terrain of Israel. For a few minutes and in a few dunam, Israeli life mimics Palestinian devastation with burnt crops and anticipatory gazes skywards.

¹⁵ Erica Chernofsky, “[How kites and balloons became militant weapons](#)” *BBC* (12 July 2018)

Challenging Colonial Mastery of Geography

Incendiary kites and balloons are an aerial response to the ongoing debilitation of Palestinian bodies that includes the limited amount of water that Palestinian prisoners are allowed to consume, the practice of Israeli snipers to shoot Palestinians in the legs, and the difficulties in accessing medical equipment in Gaza and the West Bank. The debilitation of Palestinians is largely determined by geography. Israeli colonialism sections space and enacts different methods of governance accordingly. In the West Bank, the sectioning of space for governance can be seen in the fragmentation of territory caused by the apartheid wall that snakes around settlements and divides villages. The electromagnetic sphere is also sectioned through Israeli cyber-occupation in the West Bank. In Gaza, fishermen are allowed six nautical miles of fishing space as of late 2018. In Jerusalem, Israelis excavate underneath Haram al-Sharif to find evidence of Jewish life that predates Palestinian presence. And in Hebron, Palestinians live below Israeli settlements and are forced to install nets above their residences as settlers regularly dispose trash out of windows onto Palestinians.



Figure 23: Old City of Hebron (Rich Lord / Post-Gazette. West Bank, 2015.” Pulitzer Center, 26 October 2015)

In these examples we can see the different modes of control enacted upon the sea, the subterranean, and ground levels. Eyal Weizman’s work on the politics of verticality serves as an appropriate theorization to think through these different modes of control.¹⁶ Weizman’s work centers on the early colonization of Palestinian land. According to initial declarations of Israeli sovereignty, Israeli land was characterized by lowlands and valleys. However, Weizman identifies the Six Day War as a shift in Israeli defense strategy from linear defense to a “matrix of dynamic defensive positions” that allowed the army to disperse into semi-autonomous units on hilltops. This tactic allowed for a constant refiguration of defense. The 1907 Hague allowed for temporary fortifications for occupying forces for temporary military needs. Therefore, settlements on hilltops were established as fortifications. It is at this time that architects become complicit in

¹⁶ Eyal Weizman, “Introduction to the Politics of Verticality” Open Democracy (23 April 2002)

occupation, as Israelis had little experience building on hilltops. Architects supplied planning information, and also transformed the hilltop from a military fortification into an aesthetic site with panoramic views of Palestinian architecture, land, and life. In effect, the combination of aesthetics and military fortification developed a surveillance function for these hilltop settlements. These fragmented, dispersed settlement suburban communities are connected through tunnels and bridges that span over and under alien territory. Therefore, bridges and tunnels are another site of the politics of verticality. Weizman argues that the two state solution imagines Israel and Palestine as a multilayered building where architecture works as geopolitics. For example, Weizman explains Bill Clinton's plan for dividing sovereignty in Jerusalem between Palestinians and Israelis. During Camp David, Bill Clinton proposed Palestinian sovereignty for the piazza level of Haram al-Sharif until thirty centimeters underground. Underneath these 30 centimeters would be 1.5 meters of United Nations space, and underneath this space is Israeli sovereign space (Israeli underground sovereignty would allow for excavations that Israel conducts in an attempt to find Jewish artifacts to establish Palestine as the Jewish homeland). The air above Temple Mount and Haram al-Sharif, or "heavenly Jerusalem" would also be Israeli sovereign space. Israeli vertical governmentality demonstrates a belief that natural and man-made formations can be sectioned, that empire knows no geographical barrier.

Contrastingly, the use of kites and balloons as vehicles of attack *must* take into account wind resistance and direction, tall structures, waterways, etc. Consider the Japanese Fu Go balloon required extensive research on the Pacific jet stream that left Japan only able to release balloons in the winter, reducing the possibility of causing

wildfires with explosives. While the Palestinian balloons have a fraction of the distance to travel, they too rely on the environment to do the work of explosives delivery. The seemingly unorganized reliance on wind direction is part of the terrifying aspect of balloon and kite bombs for the Israeli public. Landing in Knesset members' yards, near schools, and in a community center, these balloons are released without aim other than general direction. Israelis have protested the government response to these aerial devices that continue to be found in southern Israel; *YNet* reported that protesters held signs that read "Israel is burning, we demand security."¹⁷ The randomness of where these balloons



Figure 24: Incendiary balloons on drone (BATIA HOLIN, [The Jerusalem Post](#) 6 January 2019)

fall is understood by these protesters as an attack on all of Israel. Not one building or area is targeted. Rather, incendiary devices ignite wherever they happen to land. The seeming randomness of landings demonstrate a reliance on the

environment rather than attempt to master geography. Contrasting with missiles and

¹⁷ Lukash, Alexandra, and Inbar Tvizer. "Netanyahu: We Demand 'complete Ceasefire' with Gaza." *Ynetnews*. August 12, 2018. Accessed June 13, 2019. <https://www.ynetnews.com/articles/0,7340,L-5327146,00.html>.

rockets where a particular trajectory and target is chosen, kites and balloons are released to the wind. The close proximity of settlements to villages, Israelis to Palestinians allows for this low-tech weaponry to enter the Israeli consciousness as a credible threat.

Aerial explosives released from Gaza bring to light the question of sovereign airspace. These kites and balloons are a response to what Weizman identifies as the politics of verticality,¹⁸ where vertical space is leveraged to create conditions of debility for Palestinians.¹⁹ Contrastingly, the deployment of balloons and kites act as a theatrical gesture of resistance, a reclamation of vertical space that also reveals the insecurities of a highly technologized Israeli settler state to low cost, low-tech instruments of resistance.

These deployments contrast the Israeli sectioning of vertical space by relying on the environment to pilot and ignite the devices. Therefore, the deployments function as an alternative understanding of space, land, and verticality opposed to colonial myths of mastering the environment. The deployment of kites and balloons from Gaza indicates an alternative anti-colonial imaginary that rejects the notion that geography is something to be overcome and overtaken. Rather, the kites and balloons leverage space and environment for protest.

Threatening Israeli High Tech Defense

¹⁸ Eyal Weizman, "[The Politics of Verticality: the Architecture of Warfare in the West Bank](#)" Architectural Association School of Architecture (10 November 2004)

¹⁹ Jasbir Puar marks debility as a departure from empire instrumentalizing life for the aim of generalized destruction of populations. Rather, the exposure of populations to premature death also creates debility, defined as "the slow wearing down of populations." The economies of debility "maintains the precarity of certain bodies and populations precisely through making them available for maiming." Furthermore, the death and debility of Palestinian life is made productive and economized, as seen in the disaster tourism and NGO presence in the West Bank and Gaza, particularly. For example, the economies of debility created by Israel have led the nation to be an innovative competitor in technological and medical innovation. See: Jasbir Puar, *The Right to Maim*

When incendiary balloons were first considered in warfare, delegates at the 1899 Hague ratified a five-year ban on these aerial ballistics because of the difficulties of predicting balloon flight. Despite these concerns, in 1918 the United States developed unmanned wind driven balloons that were to be deployed from France to release lethal gas canisters in Germany. This early example of developing weapons of mass destruction, as characterized by Charles Ziegler, ended prematurely due to the armistice.²⁰ Many military officials voiced ethical concerns and advocated for the development of precision bombing.

However, the techno-utopian myth of modern aerial bombardment claims precision while *also* enacting area destruction.²¹ Writers like philosopher Grégoire Chamayou, sociologist Donald Mackenzie, geographer Peter Wall, and former U.S. Air Force officer Peter Goodrich have explained the myths of precision and accuracy as it relates to military ballistics. Critics of techno-utopian claims regarding high tech precision contest the idea that drone warfare is somehow more ethical than other methods of warfare. As various military documents and interviews show from the War on Terror, high-tech missiles still enact area destruction because there is no way to control the aftermath of a blast. Missile accuracy is seriously compromised by weather. There are also seconds to abort a missile deployment if an untargeted party appears in the vicinity. Numerous reports of drone strikes like those on Anwar al-Awlaki's family demonstrate

²⁰ Ziegler, Charles A. "Weapons Development in Context: The Case of the World War I Balloon Bomber." *Technology and Culture* 35, no. 4 (1994): 750-67. doi:10.2307/3106505.

²¹ Peter Spang Goodrich, "[The Surgical Precision Myth: After the Bomb Explodes—Cumulative Colateral Damage Probability](#)"

that precision bombing is a misnomer. Rather, the accidental deaths as a result of these attacks are deemed to be acceptable casualties.

Contrastingly, the balloon or kite do not claim precision or accuracy. Their low tech nature seems defiant to these myths. And their meandering flights stake the claim that Israelis are all complicit in occupation, that there is no divide between civilian and combatant, just as Israel does not make that distinction for Palestinians. Therefore, the location each aerial devices lands in is irrelevant. *Palestine Monitor* characterizes these devices as purely symbolic, quoting author and journalist Ramzy Baroud: “Gazan kites are expressions of defiance, hope and the longing for freedom...People living under oppressive rules take every opportunity to express defiance, even through such a symbolic way.”²² Because the devices have not injured or killed anyone, they function in a largely symbolic measure by penetrating Israeli high tech defense. Where they land, whether they detonate, and what damage they cause is almost incidental. The goal of these devices is to disrupt the sheltered daily routine of Israeli citizens.

Lisa Parks configures vertical hegemony as the struggle for control over vertical space including the terrestrial, orbital, aerial, atmospheric, and spectral. Parks identifies a post-9/11 trend of U.S. attempts to monitor vertical space through drone warfare, geospatial imagery, airport security checkpoints, etc: “The struggle for vertical hegemony is undergirded by the assumption that controlling orbit, air, and spectrum is tantamount to controlling life on earth.” In the conclusion to her text *Rethinking Media Coverage: Vertical Mediation and the War on Terror*, Parks observes the recent trend of automotive

²² Alicia Ramos Perez, “IDF warplanes bomb Gaza in response to incendiary kites and balloons” *Palestine Monitor* (19 June 2018)

terrorist attacks like truck rammings across Europe indicates signifies a response to U.S. drone attacks, terrestrial contestations to aerial power.²³

Palestinian response to Israeli vertical hegemony has been contestation on several levels. Rocket launches from Gaza into Israel, tunneling at the Rafah crossing, and stabbing attacks on settlers are but some examples of of the multiple sites of vertical resistance. These balloon and kite launches are a democratization of aerial resistance. Low-tech resistance, especially in blockaded Gaza, allows for more to participate in the reclamation of aerial space from Israeli drones, missiles, and jets. In fact, Palestinian protesters have dubbed incendiary kites as “the new F-16,” referencing Israel’s highly technologized weapons of occupation.

Israel uses high-tech vertical monitoring and targeting devices in an attempt to deter and prevent attacks with little success. This failure of high tech to combat kites and balloons have caused significant psychic damage to the Israeli public’s sense of security. *The Times of Israel* explains that “these dead simple and dirt cheap methods have presented a significant challenge to the mighty Israel Defense Forces. The military has used drones and other high-tech solutions to some positive effect, but every day the kites and balloons keep coming.” Contrastingly, Israeli military has used various aerial devices on the Palestinian people. Drones, missiles, white phosphorus bombs, etc. are part of the question of sovereign airspace in Israeli occupation. Former Israeli defense minister Moshe Ya’alon argues that “[Israel] should’ve hit Hamas hard when it flew the fire kites into our territory. *This was a violation of our sovereignty* and it needed a tough response”

²³ Parks, Lisa. *Rethinking Media Coverage: Vertical Mediation and the War on Terror*. London: Routledge, 2018.

(emphasis added).²⁴ The deployment of incendiary kites and balloons from Gaza and the few released in the West Bank demonstrate a countering of Israeli occupation of the Palestinian ecosystem. Lisa Parks argues that

“orbit, air, spectrum, and ground each have the potential to function as sites of mediation. As technologies and objects move through these domains they leave traces and varying degrees of presence and legibility...they have the potential to sense and transform the geophysical territories and oceans below.”²⁵

Palestinian aerial devices have far reaching consequences for the terrain of Israeli occupation, determining what materials are allowed through the blockade, where military units are deployed, and how much funding is released to Palestinians in the West Bank. Additionally, the kites and balloons transform the rhetorical might of Israeli occupation by showing what basic materials can do against a highly technologized settler state.

These low-tech tools of resistance demonstrate that hyper segmentation and monitoring cannot secure vertical space. Rather, Israeli hegemony is contested at every level. For example, Middle East Eye reported in June 2018 that Palestinians were using fishing nets attached to kites to trap Israeli drones that fire missiles to destroy incendiary kites. The accompanying image shows a drone dwarfed by a clear kite with a fishing net attached. Contrails from an unidentified source, perhaps a rocket or drone-fired missile, appear in the background. The vapor seems to pierce the kite. The optical illusion of the image provides an artistic rendering that attributes the contrails to the low-tech kite. The

²⁴ "Ex-defense Minister Ya'alon: Our Weakness in Gaza Led to West Bank Terror." The Jerusalem Post | JPost.com. December 16, 2018. Accessed June 13, 2019. <https://www.jpost.com/Arab-Israeli-Conflict/Ex-defense-minister-Yaalon-Our-weakness-in-Gaza-led-to-West-Bank-terror-574445>.

²⁵ Parks, Lisa, and Nicole Starosielski. *Signal Traffic: Critical Studies of Media Infrastructures*. Urbana: University of Illinois Press, 2015.

contrast between the drone and large mass of the kite inverts the juxtaposition of Israeli technological supremacy and the plastic and sticks of the Palestinian kite. The contrails suggest might to the kite. The image tricks the eye into associating supremacy with the kite rather than the surveillance drone. Therefore, the picture demonstrates the efficacy of low tech against Israeli high tech.

The aerial explosives underscore the complicated relationship between Palestinians and technology. The flow of digital technology from the United States and Western Europe to Israel, along with Israel’s tech hub “Silicon Wadi” and its close relationship to the Israeli Defense Forces, places Palestinians simultaneously (1) heavily in contact with technologies of surveillance and biopower, (2) limited in their access to information communication technologies, and (3) as outsourced skilled labor for Israel-based tech companies. Therefore, incendiary balloons and kites should be considered within the larger history of Palestinian bodies in contact with technologies of power.



Figure 25: Kite with net (MEE/Mohammad Asad [Middle East Eye](#) 15 June 2018)

In another image posted by Israeli resident Batia Holin to Facebook, dozens of multicolored balloons attached to a large, plane-shaped drone with a forward propeller are felled in a field. Its shape is similar to that of General Atomic's Reaper drone. The incendiary device was discovered around daybreak on January 6, 2019 in an Israeli town that borders the Gaza Strip. *The Jerusalem Post* reported that the hefty drone was manufactured at an engineering college in Gaza.²⁶ The device lay in the field for several hours before security personnel using heavy machinery was able to remove it. The device detonated when handled, but no injuries or deaths occurred. Unlike the cut-out drone deployed in November 2018, this device presumably was fully functional but was not re-used beyond this deployment. The drone's heft and functionality theatrically challenges the effectiveness of the Gaza blockade that claims to protect Israel.²⁷ The drone signifies an aerial protest of a sea and land siege, defiantly demonstrating that materials to create weapons and surveillance technology *are* available in Gaza despite Israel's best efforts, including the January 2019 conclusion of Operation Northern Shield that destroyed Gazan tunnels to Egypt.

Claiming Palestinian Right to Violent Resistance

In an image published by *Electronic Intifada*, dozens of multi-colored party balloons are seen in the sky, tied to a cut-out of a drone. Practically, the shape of the cut-out drone holds no significance, as any item hefty enough to hold the payload could be used. The faux drone then can only be read as resistance to Israeli vertical hegemony and

²⁶ "Report: Third Stage of the Qatari Grant Will Not Be Transferred to Gaza." *The Jerusalem Post* | JPost.com. January 07, 2019. Accessed June 13, 2019. <https://www.jpost.com/Israel-News/Report-The-third-stage-of-the-Qatari-grant-will-not-be-transferred-to-Gaza-576584>.

²⁷ "[Gaza: Lists of Controlled Entry Items](#)," Israel Ministry of Foreign Affairs (04 July 2010)

technological supremacy. The drone is part of a critical social performance, where protest mimics that which it is resisting. The ubiquitous presence of Israeli surveillance drones in Palestinian life is reversed, with Palestinian drones releasing payloads on Israeli land. Mimicry as opposition gestures to an ephemeral, parasitic protest. And what is more ephemeral than cardboard set to be engulfed in flames? The theatrical destruction of the drone by rudimentary explosives like molotov cocktails also performs a protest that Israeli technology can be undone with simple materials.

Made of sticks, plastic, rubber and cardboard, these new drones and F-16s have entered into the Israeli imaginary as even more disturbing than rockets. Many Israeli mothers have lamented that toys have become weapons, a direct threat to their own children who now have to be told that balloons and kites are dangerous. The commercialization of drones as toys similar to remote controlled cars can be read parallel, as in some contexts a toy can easily become a weapon, or a weapon can become a toy. The brightly decorated aerial devices contrast sharply with the incendiary payloads attached. The bleakness of war is punctured by these colorful toys, many of which are store-bought emblazoned with messages like “I <3 You” or the Arabic word for beloved, *habibi*. The assumed innocence of balloons and kites, highlighted through these messages of love, is transgressed through kite and balloon bombs.



Figure 26: Incendiary I <3 You balloon. (Israel Police, The Times of Israel 20 June 2018)

Various articles have reported that children and women have joined efforts to release these devices, indicating the actions as part of a grassroots protest rather than instigated by the Hamas-led government of Gaza. The participation of women and children in these deployments recalls their central role in the First Intifada (1987-1993). Penny Johnson and Eileen Kuttab explain that the location determined the high participation levels of women in the First Intifada as opposed to the Al-Aqsa Intifada over a decade later; the former intifada took place in the homes and streets, while the latter took place in at checkpoints.²⁸ The deployment of kites and balloons from within Gaza allows for wider grassroots participation. The community becomes a site of organizing protest.

²⁸ Penny Johnson and Eileen Kuttab, “Where have all the women (and men) gone?” Routledge

Contrastingly, there is also discourse of Israeli mothers protesting the need to warn their own children about incendiary devices in their own communities. After an incendiary balloon landed on a trampoline. In Meirav Vidal's backyard in southern Israel, the mother lamented: "Balloons on a trampoline in the backyard — that's a decorative play area and beckons the most innocent ones, and yet our children have lost their innocence because of this phenomenon."²⁹ Vidal's lamentations assume an innocence that is not afforded to Palestinian children. As seen in the murder of the Bakir children in Gaza as they played soccer on a beach, or the death of Faris Odeh, who is memorialized as the young boy throwing rocks at a tank, Palestinian innocence is not possible in Israeli discourse. *The Times of Israel* also reports that children's homework assignments are used for kite tails. Israeli Education Minister Naftali Bennett argues: "They are not twelve year old children. They are terrorists. Those who launch balloons from Gaza must be shot. If we do not shoot them, they will multiply. We must put an end to it."³⁰ What we see in the rhetoric around incendiary balloons and kites is the horror of Palestinian (children) terrorists using instruments of childhood—balloons and kites—to force a loss of innocence for Israeli children.

²⁹ Judah Ari Gross, "[Condoms, Kites, Birthday Balloons: 'Silly' Gaza weapons could lead to real war](#)" *The Times of Israel* (20 June 2018)

³⁰ tr. Cassandra Gomes-Hochberg, "[Bennett: If we don't shoot terrorists, they will multiply](#)" *Maariv Online* in *The Jerusalem Post* (8 October 2018)

Palestinian Demographic Threat



Figure 27: Incendiary condom balloons ([Hazem Balousha](#) 16 June 2018)

Various images of Gaza’s aerial bombs show oblong, clear balloons have circulated in both Israeli and Palestinian audience news sites [See Figure 7]. Condoms, more durable than standard rubber balloons, have been attached to payloads released in Israel. The use of inflated condoms as incendiary balloons poetically references the Israeli fear of demographic genocide. Demographics are a primary contestation for conservatives against a one-state future for the region that would leave Palestinians outnumbering Israelis, threatening the purity of the Jewish state. Condoms released into Israeli territory communicate the perpetual fear of Israeli settler colonialism that Palestinians cannot be eliminated. The explosives attached to these condoms are themselves a gesture to an almost inversion suicide bombing—a birth bombing. With each condom used for balloon bombing rather than as a prophylactic, millions of sperm fertilize Palestinian eggs, ready to continue terrorizing Israel. The balloons enact a theatrical resistance to Israeli management of the Palestinian demographic threat. While

suicide bombing disperses the body across a site where it is not allowed to exist, the condom balloon enters the same space with the threat of *future* locative transgression. Palestinian bodies compromise the racial purity of the Israeli state. The ballistic nature of a suicide bomber's body threatens diffusion, spreading the Palestinian body throughout the settler nation-state, asserting its haunting presence in the space it has been systematically disappeared from. The unaccommodated indigenous body is reinscribed onto an urban Israeli landscape that is figured as a product of and justification for the violence committed on the Palestinian body. The weaponized prophylactics amend the threat of diffusion from the dead Palestinian body to the not-yet-alive future generations of Palestinians.

An alternative reading of incendiary condoms gestures to Israeli conceptions of Palestinian Arabs as diseased and sexually deviant. Though Israel has created a culture of pinkwashing that paints Palestinians as homophobic in contrast to an enlightened Israel, Israeli ideas of Palestinian sexual deviancy exist hand-in-hand with ideas of Palestinian homophobia. In other words, Arabs are cast both as homophobic and sexually deviant.³¹ Within this Orientalist formulation of Arab bodies, the condoms sent into Israel can be read as a rejection of sexual regulation. As condom use is advocated for in the prevention of sexually transmitted diseases like HIV, the prophylactic aerial devices threaten unchecked disease permeating Israeli borders. The condoms incite a vision of an elsewhere in which Israeli bodies become prematurely exposed to death via the Palestinian contagion. Both sexual deviancy and disease forewarn a different kind of

³¹ See: Joseph Massad, *Desiring Arabs* (University of Chicago Press, 2007); Jasbir Pur, *Homonationalism* (Duke, 2007); Khaled el-Rouayheb, *Before Homosexuality in the Arab-Islamic World* (Duke, 2009); Joseph Boone, *The Homoerotics of Orientalism* (Columbia University Press, 2015)

demographic threat to Israel, one that threatens weakness and decimation to the body politic. This decimation also implies a threat to Israeli masculinity from the feminized Arab body, a threat that mirrors the defenselessness of a high tech Israeli state against low tech aerial explosives.³²

Transforming the Terrain of Israel

In July 2018, the World Jewish Congress launched a Change.org petition “Tell United Nations to Condemn Hamas’ Environmental War Crimes!” In two months the petition garnered 22,417 electronic signatures condemning “environmental terrorism” that includes tire burning (used for cover in clashes against Israeli soldiers) and incendiary aerial devices. The petition claims:

“Thus far, 900 incendiary devices were sent across the border, leading to more than 750 fires –an average of eleven per day. Not only has the cost of damage exceeded \$3 million, but it will take years to reverse the ecological damage caused by Hamas.

Both the United Nations Resolutions and International Humanitarian Law expressly prohibit the destruction of the natural environment in armed conflict, and yet the international community has remained silent as Hamas wages

³² An example of feminized Arab bodies and homophobic Palestinians working together in the Israeli imaginary is the murder of Mohammed Abu Khdeir. The sixteen-year-old Palestinian was kidnapped, bludgeoned, and burned alive in the early hours of July 2nd, 2014 by three Israeli youth, two of whom were minors at the time. Much of the coverage of Abu Khdeir’s murder in Israel brought up the idea that he was murdered by Palestinians for being gay, a belief that rested solely on Abu Khdeir’s photographs that seemed to indicate feminine features. Here we see that Abu Khdeir is assumed to be gay by phenotype and Palestinians are assumed to be homophobic.

environmental warfare that endangers civilians, wildlife, and ravages the natural beauty and resources of Israel's southern region.”³³

Contrastingly, one kite flyer argued, “Even if they cause damage to lands already taken by force from Palestinians, the kites are still a symbol of peace and freedom. At least they do not target or kill anyone and we are not aiming [for] this.” Many of the fires have affected Jewish National Fund forests, which themselves are a form of eco-terrorism, or the deliberate causing of environmental damage for political aims. Weizman explains the JNF practice of planting pine trees that have naturally acidic roots, leaving the land surrounding even felled trees poisonous to Palestinian crops for years.³⁴ Furthermore, JNF forests have historically been planted over the remains of destroyed and ethnically cleansed villages. This greenwashing of Israeli occupation is echoed in the language of the Change.org petition that characterizes Palestinians as incapable of taking care of land, the same rhetoric used to confiscate uncultivated land in the early days of Israeli statehood.

The environmental devastation caused by Israeli weaponry on Palestinian land is not categorized alongside incendiary balloon and kite –caused fires. Rather, the seeming precision and deliberateness of drone-fired missiles, wall construction, tree planting, etc. is indicative of Israeli vertical sovereignty. The state can alter the environment to suit its needs. Instead, the seemingly random, disorganized flight of kites and balloons, so dependent on the environment themselves for flight, is unsanctioned environmental

³³ "Tell United Nations to Condemn Hamas' Environmental War Crimes." Change.org. Accessed June 13, 2019. <https://www.change.org/p/erik-solheim-call-on-unesco-to-condemn-hamas-for-environmental-war-crimes>.

³⁴ Eyal Weizman, “Introduction to the Politics of Verticality” Open Democracy (23 April 2002)

damage. Only the state and its agents can hold a monopoly on ecological devastation, just as only the state and its agents can hold a monopoly on sanctioned violence. The Change.org petition understands unorganized guerrilla balloon launches through the logics of terrorism.

Palestinian Grassroots Organizing

On January 9, 2019 *The Times of Israel* published an article titled “ Hamas renews funding for kites.”³⁵ In it, the authors explained that Hamas allocated funding for both their “tire unit” and “kite unit,” spurred by Qatar’s donations to Gaza. A second round of funding from Qatar at the time was being negotiated for release, as Israeli officials demanded a halt in incendiary balloons and kites as a condition for the Qatari donation. This article demonstrates a departure in rhetoric from several other pieces both on Israeli and Palestinian news sites that characterize aerial deployments as haphazard and unorganized. Rather than expressing surprise that low tech weapons are being leveraged against Israeli Defense Forces, *The Times of Israel* article characterizes tire and kite units as if they are equivalent to Hamas-sanctioned rocket launches. The language around “units” further draws parallel traditional military units to these kite and fire campaigns, effectively glossing over the disparate resources used in these deployments, and by extension the damage Israeli siege has done on Gaza. In this article, we can see the ways kites and balloons have entered into Israeli consciousness as terrifying weapons of war, even as the technical capabilities of Palestinians are disavowed through other descriptions

³⁵ Issacharoff, Avi. "Hamas Renews Funding for Incendiary Kite Units Ahead of Expected Escalation." *The Times of Israel*. Accessed June 13, 2019. <https://www.timesofisrael.com/hamas-renews-funding-for-incendiary-kite-units-ahead-of-expected-escalation/>.

of these weapons as child-like or silly. This destabilization of high tech/ low tech gestures to the the fraught nature of technodeterminist claims.

The disavowal of incendiary aerial devices as grassroots works to delegitimize Hamas's role in organizing community members. The distinction between grassroots and Hamas-led reveals an insistence that Hamas cannot represent Palestinians in Gaza. Rather, the guerilla deployment of kites and balloons gestures to a return to democratic political activism, a trend that Johnson and Kuttab note as disappearing in the Al-Aqsa Intifada due to the establishment of formal, closed political structures as avenues for activism.³⁶

Implications

This chapter reads the 2018 incendiary kite and balloon deployment out of the Gaza Strip. Part of the March 2018 Land Day protests, Palestinians have released these incendiary devices as a reclamaiton of airspace. While Land Day commemorates the expropriation of Palestinian land for Israeli use, the incendiary balloons deployed during the Great March of Return extend Palestinian claims for sovereignty beyond land. Rather, the kites and balloons gesture to a formulation of sovereignty beyond administration of borders, but a type of sovereignty that allows Palestinians to determine their relationship to the environment.

These incendiary unmanned aerial vehicles figure into a larger consideration of high and low tech that counter technodeterminism and Israeli claims for military supremacy. Rather, kite and balloon deployments indicate the power of low tech against a

³⁶ Johnson, Penny, and Eileen Kuttab. "Where Have All the Women (and Men) Gone? Reflections on Gender and the Second Palestinian Intifada." *Feminist Review*, no. 69 (2001): 21-43. <http://www.jstor.org.proxy.lib.umich.edu/stable/1395628>.

highly technologized Israeli settler-state. The discursive archive presented in this chapter elucidates perceived juxtapositions between Israelis and Palestinians: civilized/ uncivilized; high tech/ low tech; innocent/ immoral; pure/ contagious; environmentalist/ terrorist; and democratic/ authoritarian. The balloon and kite deployments call attention to both the mutability and Palestinian's tactical leveraging of these categories. The high/ low-tech dyad is destabilized through Israel's inability to prevent fires caused by kites and balloons. The depiction of Israeli innocence is contested through incendiary balloons emblazoned with words of love, a sort of dissonance between medium (balloon) and message (incendiary packets). Weaponized condoms play against concerns for the racial purity of Israel, threatening contagion. Fires set to Jewish National Fund forests destabilize ideas about what constitutes as eco-terrorism. Finally, the grassroots protest of these deployments contrast with Israel's disavowal of community organizing in Gaza as authoritarian tactics performed by Hamas. Each of these formulations indicates the instability of categories, the fault lines in settler imaginaries and settler structures

Incendiary aerial devices deployed by Palestinians into Israel reference a utopia and a way of being that is not yet here, "a doing for and toward the future."³⁷ Kites and balloons reveal the fissures of settler-colonial structures like high tech defense to indicate the possibility of alternative ways of being. The devices act as tactical media that signal an "intervention and disruption of a dominant semiotic regime, the temporary creation of a situation in which signs, messages, and narratives are set into play and critical thinking becomes possible." Kites and balloons, whether or not the incendiary payloads succeed in setting fire, interrupt the daily lives of Israelis and threaten the stability of the state.

³⁷ Muñoz, José Esteban. *Cruising Utopia: The Then and There of Queer Futurity*. New York: New York University Press, 2009.

Though destructive in the moment, these incendiary devices build towards a futurity that calls for a more ethical relationality.

Chapter VI

Conclusion

This dissertation has analyzed different types of media through the lenses of postcolonial studies and digital studies to make the case for looking at the content and form of projects that work towards an alternative decolonial future for Palestine. Largely, the objects at the center of this inquiry are digital media and new media practices. I argue that despite allowing for collaborative, cross-generational, and subversive practices of community building and archiving collective memory, new media redraws lines of accessibility. The limitations of form impact the content of digital imaginings of Palestinian futures. Additionally, new media leveraged for and against Palestine activism is imbricated within capitalist flows, the question also arises of the affordances and limitations of using these technologies to imagine a decolonial future for Palestine.

Rather than a dichotomous good/bad axiom of using new media for activism, this dissertation looks to the logics of various platforms in determining what types of alternative anticolonial practices can be formulated. The first chapter thinks through the affordances of virtual tours and oral history videos that reimagine access to Palestine. The tension between a fragmented Palestine and new media culture that aims for globalization highlights the differentially disseminated access Palestinians have to their land. These videos therefore make a claim for Palestinian sovereignty as they provide viewers with access to Palestine. The second chapter examines digital games as a site of representational politics for Palestinian gamers, activists, and allies to complicate notions

of affinity between user and character, user and narrative. Through a reading of desktop game *Peacemaker: Israeli Palestinian Conflict* and mobile game *Liyla and the Shadows of War*, the chapter shows that play affords users an immersive engagement with game logics that are modeled after settler-colonial logics. The next section looks at crowd-sourced mapping practices that extend Palestinian precarity, particularly regarding susceptibility to accidental (and purposeful) IDF incursions. The section also found similar problems in open source alternative mapping platforms, as editors are make choices about what data is important, oftentimes resulting in the erasure of Palestinian-mapped landmarks. Through these examples that illustrate the indeterminate nature of mapping for subaltern populations, I argue that the erasure of Palestine from maps has a fraught relationship to settler-colonialism. Finally, the dissertation closed with an overview of low tech Palestinian resistance in the face of a highly technologized Israeli settler-state. Incendiary kites and balloons work to deepen the fault lines of Israeli settler-colonialism by destabilizing concepts of techno-determinism. As a whole, each chapter in this dissertation takes seriously new media as a significant, structuring platform that makes im/possible imaginings of Palestinian futures.

Areas for Future Exploration: Boycott, Divestment, and Sanctions

In 2005, Palestinian civil society called for allies and those in diaspora to boycott Israeli goods, divest from companies profiting from Israeli occupation, and advocate for sanctions against the State of Israel until the decolonization of Arab lands. As part of the effort for Boycott, Divestment, and Sanctions (BDS), activists across the world have traced the circulation of capital from multinational corporations to the Israeli Defense Forces. BDS organizers draw attention to the materiality of the digital technology,

allowing for a more comprehensive understanding of the ways allies are implicated in the occupation of Palestine. There is a dearth of boycott, academic boycott, and divestment bills and victories that international activists have worked on, such as the successful campaign to push British multinational security firm G4S out of Israel. The work that Palestinians and allies do to campaign for companies to cut ties with Israeli occupation formulates a continuously changing circulation of global capital as companies sign deals, end contracts, and make space for other corporations to benefit from settler-colonialism. These changes reconstitute the relationship between activists and Palestinians in occupied, blockaded, and besieged Palestine, as these companies produce commercial products that are widely used and whose connections to instrument of warfare are obfuscated.

A notable site where divestment and boycott have been debated is the U.S. college campus. Because of the salient history of South African apartheid divestment activism on college campuses, the university has been at the forefront of divestment pushes. From 2005-2010, about a half dozen campuses passed divestment bills through student governments and faculty associations. By 2016, 42 universities had passed some sort of legislation supporting boycott of Israeli products or divestment from multinational companies that profit from Israeli settler-colonialism. One of the significant dominoes to fall in this effort was the University of California (UC) system, where eight of nine campuses and the overseeing student body of the system have all successfully lobbied for bills protesting Israel.

The following is a portion of the original version of a divestment bill officially titled “Resolution in Support of University of California, San Diego Corporate

Accountability through Divestment from Corporations Profiting from the Illegal Occupation, Siege, and Blockade of Palestine” that was written by the Students for Justice in Palestine at University of California, San Diego. This bill was the second presented to a UC that was approved by student government (albeit with revisions) in 2013. A large section of the bill was used to identify flows of technology from the United States to Israel:

“WHEREAS, the most recent UC Annual Endowment Report shows University of California San Diego holdings in the Russell 3000 Index, which includes investments in United States companies General Electric, Northrop Grumman, and Caterpillar Inc., whose military technology is used by the Israeli Defense Forces in the occupation and siege within areas of the Palestinian territories; and, WHEREAS, Globecom Systems Incorporated supplies the Israeli military with equipment and facilities for communication, including on HMMWV that are used within the occupied territories; and

WHEREAS, Hewlett Packard develops biometric identification systems installed in the West Bank at illegal checkpoints built on occupied land and prevent freedom of movement in violation of international law; and

WHEREAS, Ingersoll Rand also develops biometric technology used at illegal checkpoints; and

WHEREAS, ITT Industries creates night vision goggles used by the Israeli military on night-time attacks on Palestinian refugee camps and villages, as well as the kidnapping of Palestinian boys and men; and

WHEREAS, Motorola Systems has developed MotoEagle, a hi-tech security

systems for illegal Israeli settlements within the West Bank; and

WHEREAS, Silicon Graphics Incorporated provides F16 night-vision and combat virtual trainings to the Israeli Defense Forces that are then used to carry out attacks upon Palestinians as previously mentioned; and

WHEREAS, the technology of these companies are used to sustain the siege, blockade, occupation, annexation, and apartheid of Palestine; and

THEREFORE BE IT RESOLVED, the ASUCSD urges that UC assets do not include holdings in General Electric, Northrop Grumman, Caterpillar Inc., Alliant Techsystems, Boeing, General Dynamics Corporation, Globecom Systems, Hewlett Packard, Ingersoll-Rand, ITT Corporation, Lockheed Martin, Motorola Systems, Raytheon, Silicon Graphics, Terex, United Technologies, and Valero Energy Corporation and all other companies that profit off the military occupation of and violence inflicted upon the Palestinian people”

These clauses of the divestment bill outline the flow of technology from multinational corporations to the Israeli military. Many of these companies are household names. For example, Hewlett Packard develops personal computers and Ingersoll Rand also works with heating, ventilation, and air conditioning equipment. If we look to Sarah Kember and Joanna Zylinska’s definition of media as a process of differentiation, a “temporal stabilization of mediation into discrete objects and formations,” we can see that relationality of Palestinians to the international public is a temporal, ephemeral, and indeterminate relationship. The flows of technology from the United States to and from Israel are in flux, as are the ways activists are implicated within these flows.

Therefore, BDS campaigns bring together in tension the affect of solidarity and the material reality of U.S.-backed Palestinian occupation in order to imagine a type of relationality that ethically addresses postcolonial relations. The efforts of BDS activists engage with divestment as a tactical medium, what Rita Raley calls a temporary and ephemeral collective action that “performs a sociopolitical intervention by gesturing only obliquely toward a better world in the future, its vision of tomorrow.”¹ A temporal formulation of relationality draws on Subaltern Studies’ critique of a spatial understanding of postcolonial relations that asserts the stability of nationhood alongside the Manichean dyad of Global North/Global South. Relationality is temporal and indeterminate, rather than spatial and static. The flows of capital are not limited within borders, as evidenced by outsourcing and multinationalism. Reading BDS bills and victories necessitates cross-disciplinarity, illustrating that both new media studies and postcolonial studies frameworks are needed to capaciously understand global flows of capital, particularly relating to dispersed, modular networks of technological production.

This dissertation was written with the flows of technology outlined in BDS resolutions in mind. The fraught orientation of new media to Israeli settler-colonialism is characterized through flows of technology and activists’ use of digital networks to organize communities.

Areas for Future Exploration: Palestine and Web 3.0

The multiple imbrications of hardware and software in Palestinian activism and Israeli settler-colonialism demonstrate the need to analyze not simply the affordances and limitations of new media, but the ways technology structures the conditions of possibility

¹ Raley, Rita. *Tactical Media*. (University of Minnesota Press, 2009).

for Palestine organizing. The following list calls for an awareness of new media's fraught relationship to social movements and warfare—not just relating to Palestine, but dating back to the Internet's roots in the U.S. military even as New Communalists attempted to leverage technology to form diverse relationships—destabilizes techno-utopian dreams of new media-facilitated decolonial futures:

- In March 2018, an Israeli military court sentenced Nariman Tamimi to eight months in prison for incitement. Nariman had live-streamed her 15-year-old daughter Ahed's confrontation with Israeli soldiers that included the teen slapping a soldier in the face.²
- In May 2017, a New York court threw out a lawsuit against Facebook that claimed the platform violated anti-terrorism legislation by allowing Hamas to recruit on the social networking site.³
- A 2015 social media campaign to free hunger striking Palestinian prisoner Khader Adnan culminated in his release after 55 days without food.⁴

The BDS movement temporally coincides with the rise of social networking sites. Therefore, it is difficult to identify moments where new media has facilitated Palestine activism because so much of the organizing is structured through new media. In other words, the BDS movement is anything but an analog movement. From secret Facebook

² Kershner, Isabel. "Ahed Tamimi, Palestinian Teenager Who Slapped Israeli Soldier, Is Released From Jail." *The New York Times*. July 29, 2018. Accessed June 14, 2019. <https://www.nytimes.com/2018/07/29/world/middleeast/ahed-tamimi-israel-west-bank.html>.

³ "Facebook Sued by Israeli Group over Palestinian Attacks." *BBC News*. July 11, 2016. Accessed June 14, 2019. <https://www.bbc.com/news/world-middle-east-36762533>.

⁴ Greenhouse, Abraham. "Social Media Principles Behind the Khader Adnan and Love Under Apartheid Campaigns." *The Electronic Intifada*. February 12, 2017. Accessed June 14, 2019. <https://electronicintifada.net/blogs/abraham-greenhouse/social-media-principles-behind-khader-adnan-and-love-under-apartheid>.

pages to list servs, online petitions to Twitter campaigns, so much of BDS activism is performed in virtual spaces. At the same time, these online spaces are being leveraged against Palestine organizing both in Israel and internationally.

As an activist in the UC system during the years BDS bills were presented to student governments, I became aware of the ways social networks and new media both facilitated community organizing and was a liability to our security.

For four years, I worked with a group of dedicated students to launch a public relations campaign for Palestinian rights. Each year, our efforts crashed and burned in new ways. In 2013, after a long effort to elect progressive students of color to student government and various mini campaigns directed at student organizations like the Sustainability Collective and LGBTQIA groups, a small group of almost exclusively women of color including myself succeeded in passing our divestment bill. For those of us who were responsible for writing the language of the bill, it was a moment that allowed others to see truly anti-colonial language could succeed in a divestment campaign. Compared to our previous bills and many others passed at various universities, the 2013 divestment language pulled no punches. There was no attempt to placate pro-Israel students with advocacy of disengagement from the conflict to have a neutral stance. Each clause in the bill was crafted to establish solidarity with other student of color groups, and made claims regarding Palestinian indigeneity. In the years that followed, our SJP along with others were invited to national events to advise other groups on how to pass divestment.

Much of our organizing took place online. We were added to a secret Facebook group with students at other universities who wanted to pass divestment bills. Each presentation of a divestment bill was live-Tweeted by us and live-streamed by opponents.

Online activism was also a liability. The UC San Diego SJP drove up to Irvine for almost every court date of the Irvine 11. Many of us knew the students on trial personally. We sat in the audience at the courthouse among friends and family of the men, witnessing the prosecutor present personal emails and texts between the 11. We had had our suspicions that our university emails were being read by administrators, and the Irvine 11 trial provided fodder for our misgivings. We needed our social networking platforms, but we knew they could be leveraged against us.

This same misgiving is what provided this dissertation with a central research question: how do new media and digital platforms determine the contours of community organizing? Rather than denouncing new media wholesale, this dissertation works to understand the affordances and limitations of media objects. In conclusion, this dissertation demonstrates the ways logics of new media can be contested and used to imagine alternative anti-colonial futures.

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