

## Countering Military Logistics and Algorithms in Palestine

**JUMANAH ABBAS**

Columbia University

Algorithms -the well-calculated, supposedly all-solving encrypted formulas for any computational problem- have come to define our interactions. What we like, what we desire, what we see, and how we even perceive the space: encryptions have come to define how a space is constructed, and destroyed. They have to come to order space, and even subvert it. That is, algorithms have come to read and write the world. But before the entanglement of codes within cities, what preceded algorithms? The modern concept of algorithms was analyzed by ancient mathematicians, and was later redefined by social scientists and engineers to sustain a more formal language and to execute efficiently. To that end, algorithms became essential to carry out specific tasks, process information, read data from one source, and provide an output.

Against this account of technological determinism, algorithms have come to matter both spatially and politically. They shape the political image of the city, and they also manifest in urban spaces; how it's designed and re-designed, almost predicated on generating variation of the same code. Else ways, algorithmic gaze have come to track various flows and movement of bodies, goods, cargoes, and troops. Taking cues from the Italian Renaissance diplomat and writer Niccolò Machiavelli, who wrote a treaty titled the Art of War and provided diagrams depicting an analytical placement of troops, soldiers and bunkers, algorithms, likewise, come to define the human position within cities and their environments. Just as how Machiavelli's abstract drawing reduced bodies to numerical figures and politicized spaces to abstract lines, algorithms have reduced our interactions to pre-set of instructions and predications.

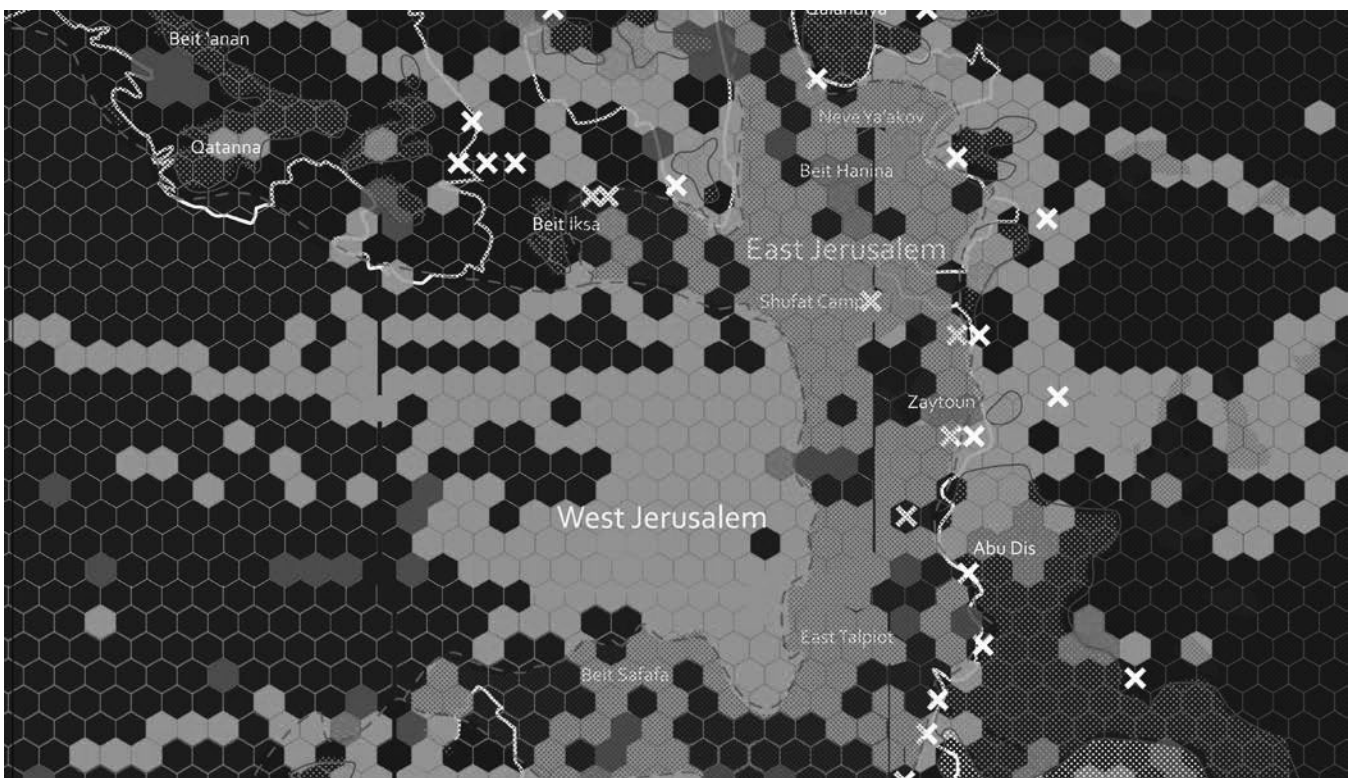


Figure 1. Political control over the borderlands of Palestinian cities such as Ramallah, Bethlehem and Jerusalem are foreshadowed and brought to visibility even in the restricted use of cellular networks. Drawn by Author.



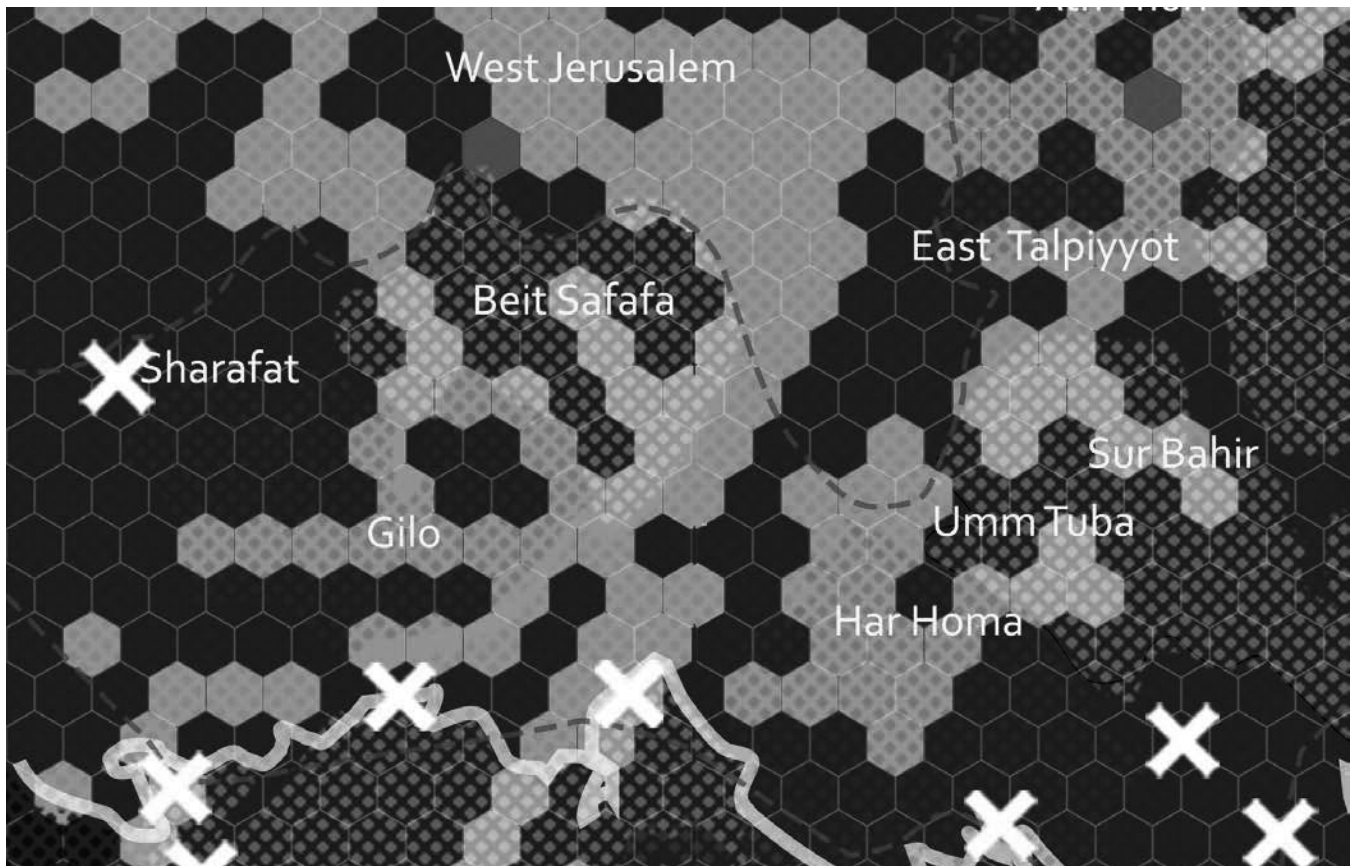


Figure 3. Image caption. Image credit.

Both rendered the world measurable and navigable. And both are predicated upon pre-planned lines of calculations; lines that are traced back to social-political ideals and claims to power.

In Machiavelli's drawings, positions of attack and political schemes in the form of symbols become the main features of these urban spaces. The acclaimed father of modern political philosophy and political science showcased the logistics of military planning. While algorithms, and their electromagnetic relational backbone, are weaponized tools that became essential to secure security over territories and communication technologies. Hence, mapping algorithms relations to space is a deadly spatial practice. To map the algorithms' utilities is to uncover how communication technologies, just as Machiavelli's diagrams, expand and constrain ways of inflicting violence.

What lies here is uncovering the past that inform the present status of urban warfare; launched in the webs of cellular networks and their technical backbones. In particular, the means of making a phone call in the West Bank are implicated in Israel's tightening of geopolitical control over Palestinian lands: the expansion of settlements, settler-only roads and checkpoints, confiscation of land and equipment, and administration of technical systems have all become entangled with telecommunications. Across an account of historical military operations

and their multiple narratives, countering the logistics behind these military operations mapped on the ground lies as the core of the essay. I analyze the spatial formations behind these military logistics, which crucially positions the historiography of logistics with an interconnected network between military organization, designed engineering, calculated communications and transportation. The aim is to acknowledge that urban planning is placed at the forefront of a complex relationship between the environment, communication technologies, and the real or imaginary architecture. Urban planning should not remain as a backdrop to these logistics, and their relations. Instead, it should be at the forefront of these complex relationships.

To realize the objective, the essay follows a loose chronology centered on countering the logistics behind military operations that contributed to understanding the current military operations in the current digital sphere. Against images of the current status of the cellular network, the essay hopes to push the disciplinarity of architecture that has become entangled with urban warfare. These operations such as the capture of Jerusalem, the Battle of Nabil, the Arab protests of 1933, battle grounds in the 1948 war of conquests across the Golan Height territories of Syria, and so forth. Here and elsewhere, this visual essay is not exhaustive recount of the urban warfare, nor a visual recap of the cellular network of every municipality in the West Bank. Rather, the essay operates through and against the

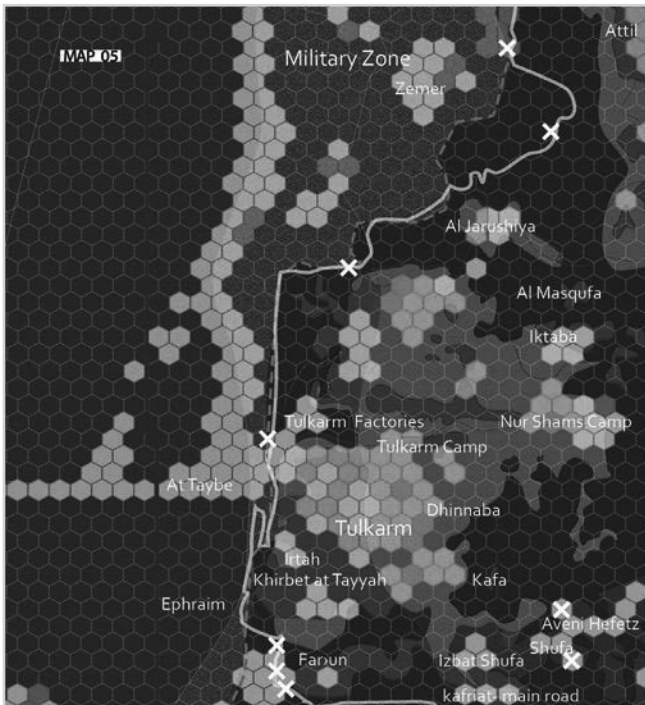


Figure 4. A drawing of two cities, Tulkaram and Qalansawe.

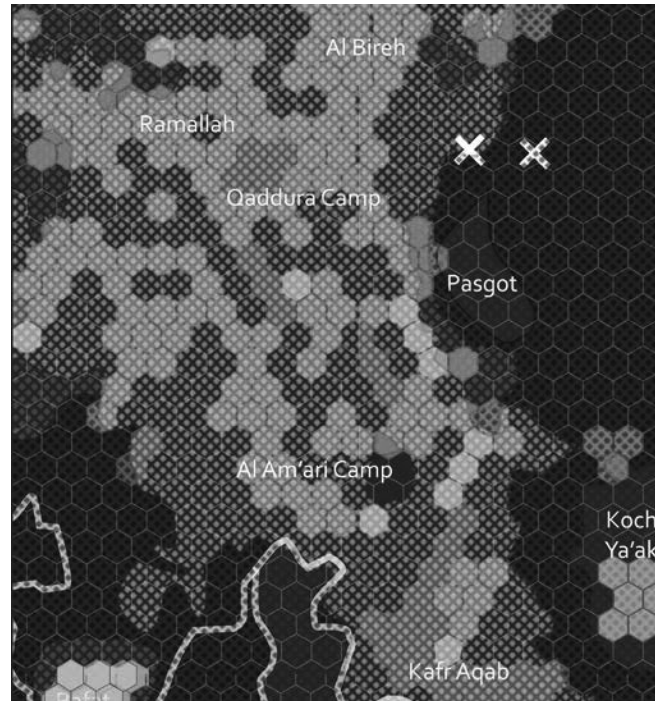


Figure 5. An up-close drawing of Ramallah's frequencies, following the spatial order of territorial demarcations.

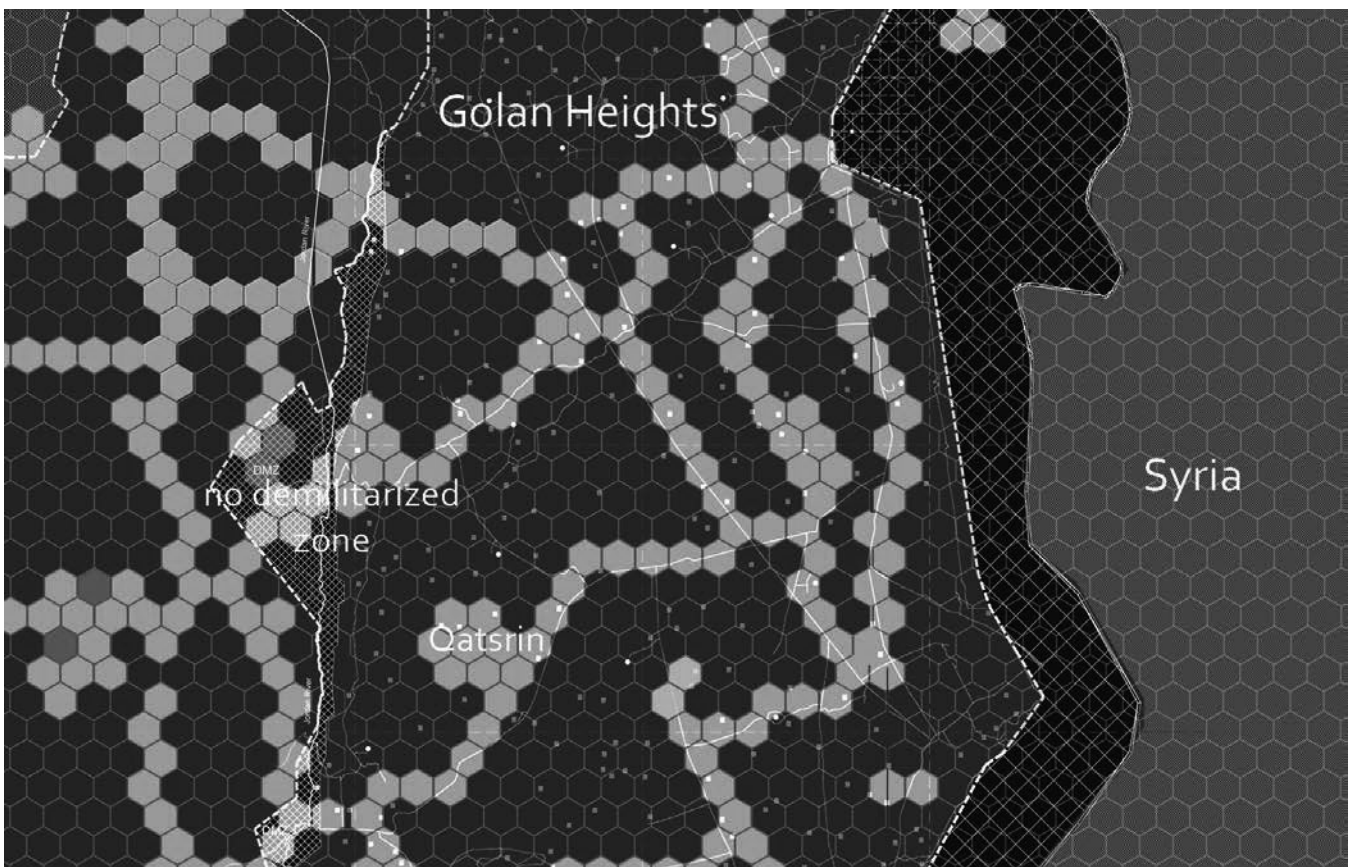


Figure 6. The annexed territories of the Golan Heights are also under Israel state's cellular landscape.

language these of logistics, their representations, technics and methodologies.

For the battle of Nabii Samweil of 1917 that was fought between the British military formation and the army of the Ottoman empire, the initial cartographies produced for the railways were manipulated by the British Empire to lay out territorial agendas concerning military operations across different timings of the day. A pre-planned advance to capture the city of Jerusalem was reliant on the infrastructure and lines of communication from the coastal shoreline to Jerusalem, with an intentional focus on the route from Nablus to Jerusalem that is constructed as the Way of Patriarchs. Considered as the first to many attempts to conquer Jerusalem, this operation perhaps shadows the many colonial attempts to trap the city in military operations. Operations, in particular, that are rendered invisible in the digital realm of map-making and world-making. Current google maps of Jerusalem portray the city as a flat, dimensional state undisrupted by the violent systems of separation.

a contested city subject to conflicts because of its religious status and associations, Jerusalem would undergo many remodeling and refashioning as a city for all—a city for all nationalities and religious entities. The physical alternations are disassociated from the, equally violent, digital conquest of the city. In 2017, the Jerusalem Municipality announced the installation of a brand new communication network within three months. The double reality of smart network, on one hand, imagines an urban city with a revolutionary technological systems and management for West Jerusalem, and on the other, tightens the territorial enclosure of East Jerusalem.

Another site of examination is the protest of Jaffa in 1933 and the 1936 Operation Anchor. Palestinians would march across the streets of the city; protesting against the settler-colonial project. Reports would detail the people's procession that were outlined and designed by the Committee of the Moslem Christian Association and the Executive Committee of the Palestine Youth Congress, describing the negotiation between the mass of the people and the police. Control of space was a contested subject that would resurface in documents issued by the British police headquarters and government offices. In the upcoming year, the response was to incrementally deploy a designed principle at an urban scale. That is, the British army's strategic placement of a wide-boulevard splintering through the city would allow army patrol into the city, echoing Hausman's design efficiencies for maximizing movement of troops for the renovation of Paris. Now known as the "Operation Anchor" Palestine, this example reflects the tactics based on the utility of plan: A two-dimensional plan that has flattened the perception of a city, a rudimental plan that erased the Palestinian bodies, distorted local responses, and captured a reductive design response for military efficiency.

In cities, such as Jaffa where aspirations is meet by the harsh realities under military occupation and weaponized technologies. The de-facto capital of the West Bank, Ramallah, was proclaimed to be the first "smart city" in the Palestinian territories. One of the state's many initiatives towards realizing this vision is to build the municipality's first Geographic Information System (GIS) platform. Yet despite these technological advancements, Ramallah lacks much of the necessary physical infrastructure to build, let alone become a "smart city". For example, access to 4G and 5G frequencies is restricted by Israeli authorities who have not provided Jawwal's cellphone service with the necessary bandwidth.

Another point is the pre-planning the conquest and annexation of the Jawlani lands, which strategically lie between the borders of Lebanon, Jordan and Syria. While maps of Jawlan are metaphorically reproduced to construct empty geographies devoid of the Jawlani population, the spatial reproduction can be traced back to initial military drawings that were modified by the Maps and Images Services of the Israeli Military forces in 1940s. As found and stated in the digital archive of the Palestine Museum, the map presented here shows the borderlands, roads, scared places, the topographical changes in land, and most importantly, the conquest of these What is extremely stunning about this map is the astonishing efforts to wipe out the existing lands and farms. Emptying these lands from indigenous communities is equate to constructing an apartheid state.

Military control was executed at an urban level; rheserationalized, calculated and highly defensive military operations become a tool invisible to the conquest of the settler-colonization. It speaks of the colonial techniques, and the narratives that continue to appropriate the presence of the Palestinian community on the ground, and in the digital realm. But how can we begin to rewire the semantics of these discourses and their terminology, while disrupting the academic models about logistics, military, urban warfare and the flattened the architecture discourse. In a world that's increasingly hostage of map, place or city making, the counter-reaction should be an urgent reminder to rethink through these maps, while engaging with the actual conditions on the grounds.

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#### ENDNOTES

1. Stephen Graham, "Combat Zones that See: Urban Warfare and US Military Technology," in *Observant States: Geopolitics and Visual Culture*, ed. Fraser MacDonald, Rachel Hughes and Klaus Dodds (London: Bloomsbury, 2010): 202
2. Niccolò Machiavelli, and Christopher Lynch, *Art of War* (Chicago: University of Chicago Press, 2005)
3. "Jerusalem Works Towards 5G with Millimeter Wave Technology," *Smart Cities Connect: Media & Research* (June, 2017).
4. Nadi Abusaada, "Combined Action: Aerial Imagery and the Urban Landscape in Interwar Palestine, 1918-40," *Jeusalem Quarterly* 81 (Spring 2020): 20
5. Eyal Weizman and Philipp Misselwitz, "Military Operations as Urban Planning," in *Cities without Citizens*, ed. Eduardo Cadava and Aaron Levy (Philadelphia: Slough Books, 2004): 167-200.