

#14

(CLASS COMMENTS IN THE BOXES)

INVERSE URBAN GEOMETRY

ACADEMY OF STREET FIGHTING

BY EYAL WEIZMAN, 2007

The maneuver conducted by units of the Israeli military during the attack on the city of Nablus in April 2002 was described by its commander, Brigadier General Aviv Kochavi, as "inverse geometry," which he explained as the re-organization of the urban syntax by means of a series of micro-tactical actions. During the attack, soldiers moved within the city across hundred-meter-long "over-ground-tunnels" carved out through a dense and contiguous urban fabric. Although several thousand soldiers and hundreds of Palestinian guerrilla fighters were maneuvering simultaneously in the city, they were saturated within its fabric to the degree that most would not have been visible from an aerial perspective at any given moment. Furthermore, soldiers did not often use the streets, roads, alleys, or courtyards that constitute the syntax of the city, as well as the external doors, internal stairwells, and windows that constitute the order of buildings, but rather moved horizontally through party walls, and vertically through holes blasted in ceilings and floors. This form of movement is part of a tactics that the military refers to in metaphors it borrows from the world of aggregate animal formation as "swarming" and "infestation." Moving through domestic interiors this maneuver turns inside to outside and private domains to thoroughfares. Fighting took place within half-demolished living rooms, bedrooms and corridors of poorly built refugee homes, where the television may still be operating and a pot may still on the stove. Rather than submitting to the authority of conventional spatial boundaries, movement became constitutive of space, and space was constituted as an event. It was not the order of space that governed patterns of movement but movement that produced and practiced space around it. The three-dimensional movement through

I think its easy to go "wow" when you read this text, as its somewhat shocking, and I really like the pa- per as he seems to have approached it from a lot of different levels. Both a consideration of the built environment, the political choices that are involved there, the ambivalence of theory, but also this dis- tance, the ambivalence of war - or what war is about - and cursive element of war - or what war is about - and to some degree questioning the way in which these mi- litary officers are articulating what they're doing in this sense almost as public relations or performance.

The tactics of "walking through walls" that the military employed in the urban attacks on the refugee camps were developed, not in response to theoretical influences, but as a way of penetrating the previously "un-penetrable" refugee camps. Aviv Kochavi, then commander of the Paratrooper Brigade, explained the principle that guided the attack of the refugee camp of Batala and the adjacent Kasbah (old city) of Nablus:

"This space that you look at, this room that you look at, is nothing but your interpretation of it. Now, you can stretch the boundaries of your interpretation, but not in an unlimited fashion, after all, it must be bound by physics, as it contains buildings and alleys. The question is: how do you interpret the alley? Do you interpret the alley as a place, like every architect and every town planner does, to walk through, or do you interpret the alley as a place forbidden to walk through? This depends only on interpretation. We

interpreted the alley as a place forbidden to walk through, and the door as a place forbidden to pass through, and the window as a place forbidden to look through, because a weapon awaits us in the alley, and a booby trap awaits us behind the doors. This is because the enemy interprets space in a traditional, classical manner, and I do not want to obey this interpretation and fall into his traps. Not only do I not want to fall into his traps, I want to surprise him! This is the essence of war. I need to win. I need to emerge from an unexpected place. And this is what we tried to do."

"This is why that we opted for the methodology of walking through walls. [...] Like a worm that eats its way forward, emerging at points and then disappearing. We were thus moving from the interior of homes to their exterior in a surprising manner and in places we were not expected, arriving from behind and hitting the enemy that

It's taking the architect as strategist, and distributing it as a skill to troops. Its quite fascinating to see how radical and applied it is, its not afraid.

Shimon Naveh, a retired brigadier general, was until May 2006 the co-director of the Operational Theory Research Institute. In an interview I conducted with him, Naveh explained the aims of the institute: "Jenin was a complete failure of the IDF, the damage that this destruction has caused the IDF is larger than what it caused the Palestinians [sic], it was commanded by extremely inexperienced officers who just panicked and stopped thinking." He suggested that the IDF should further develop the kind of approach employed in Nablus and Balata. He saw his work as "making IDF actions more efficient, smarter... and thus more humane." On the theoretical references the institute employs he said: "We read Christopher Alexander [...] can you imagine? We read John Forester. [...] We read Gregory Bateson, we read Clifford Geertz. Not just myself, but our soldiers, our generals are reflecting on these kinds of materials. We have established a school and developed a curriculum that trains 'operational architects'."

In a lecture I attended, Naveh presented a diagram resembling a "square of opposition" that plots a set of logical relationships among certain propositions relating to military and guerrilla operations. Indications such as "Difference and Repetition - The Dialectics of Structuring and Structure"; "Formless' Rival Entities"; "Fractal Maneuver: Strike-Driven Raids"; "Velocity vs. Rhythms"; "Wahhabi War Machine"; "Post-Modern Anarchists"; "Nomadic Terrorists", and so on, employed the language of French philosophers Gilles Deleuze and Félix Guattari.

In the interview, I asked Naveh: "Why Deleuze and Guattari?" He replied that: "Several of the concepts in A Thousand Plateaus became instrumental for us [...] allowing us to explain contemporary situations in a way that we could not have otherwise explained. It problematized our own paradigms. [...] Most important was the distinction they have pointed out between the concepts of 'smooth' and 'striated' space [...] [which accordingly reflect] the organizational

WALKING THROUGH WALLS

walls, ceilings, and floors across the urban bulk reinterpreted, short-circuited, and recomposed both architectural and urban syntax. The tactics of "walking-through-walls" involved a conception of the city as not just the site, but as the very medium of warfare - a flexible, almost liquid matter that is forever contingent and in flux.

awaited us behind a corner. [...] I said to my troops, "Friends! This is not a matter of your choice! There is no other way of moving! If until now you were used to move along roads and sidewalks, forget it! From now on we all walk through walls!" [3]

concepts of the 'war machine' and the 'state apparatus.' [...] In the IDF we now often use the term 'to smooth out space' when we want to refer to operation in a space as if it had no borders. We try to produce the operational space in such a manner that borders do not affect us. Palestinian areas could indeed be thought of as 'striated,' in the sense that they are enclosed by fences, walls, ditches, roadblocks and so on. [...] We want to confront the 'striated' space of traditional, old-fashioned military practice [the way most military units presently operate] with smoothness that allows for movement through space that crosses any borders and barriers. Rather than contain and organize our forces according to existing borders, we want to move through them."

According to geographer Stephen Graham, since the end of the cold war a vast, international

I can imagine the psychological damage that such an operation might entail, on the other hand there is almost no way to react on it, if you think of yourself as an architect.

"intellectual field" that he called a "shadow world of military urban research institutes and training centers" has been established in order to rethink military operations in urban terrain.[1] This responds to the urbanization of insurgency. The expanding network of these "shadow worlds" includes schools, urban-research institutes and training centers, as well as mechanisms for the exchange of knowledge between different militaries such as conferences, workshops and joint training exercises. In their attempt to comprehend urban life, soldiers - the urban practitioners of today - take crash courses to master topics such as urban infrastructure, complex system analysis, structural stability, building techniques, and appeal as well to a variety of theories and methodologies developed within contemporary civilian academia. There is thus a new relationship emerging between a triangle of three interrelated components: armed conflicts, the built environment, and the theoretical language conceived to conceptualize them.

If moving through walls is pitched by the military as its "humane" answer to the wanton destruction of traditional urban warfare, and as an "elegant" alternative to Jenin-style urban destruction, this is because the damage it causes is often concealed within the interiors of homes. The unexpected penetration of war into the private domain of the home has been experienced by civilians in Palestine, just like in Iraq, as the most profound form of trauma and humiliation. Since Palestinian guerrilla fighters were themselves maneuvering through walls and pre-planned openings, most fighting took place in private homes. Some buildings became like layered cakes, with Israeli soldiers both above and below a floor where Palestinians were trapped.

I think its pretty easy to relate this text to the class, because it is the question "how is space produced" and I think its interesting to think about space not as just this physical production but also as how you interpret it, which relates to what we have been reading, Lefebvre etc.

Urban warfare increasingly depends on technologies developed for the purpose of "un-walling of the wall," to borrow a term from Gordon Matta-Clark. As a complement to military tactics that involve physically breaking and walking through walls, new methods have been devised to allow soldiers not only to see but also shoot and kill through solid walls. The Israeli company Camero developed a hand-held imaging device that combines thermal imaging with ultra-wideband radar, which much like a contemporary maternity-ward ultra-sound system has the ability to produce three-dimensional renderings of biological life concealed behind barriers.[4] Weapons using the NATO standard 5.56mm round are complemented with some using the 7.62mm one, which is capable of penetrating brick, wood, and adobe without much deflection of the bullet-head. Instruments of "literal transparency" are the main components in the search to produce a ghostlike (or computer-game like) military fantasy-world of boundless fluidity, in which the space of the city becomes as navigable as an ocean. By striving to see what is hidden behind walls and to move and propel ammunition through them, the military seems to have elevated contemporary technologies - using the justification of (almost contemporary) theories - to the level of metaphysics, seeking to move beyond the here and now of physical reality, collapsing time and space.

Naveh has recently completed the translation into Hebrew of some of the chapters in Bernard Tschumi's Architecture and Disjunction. In addition to these theoretical positions, Naveh references such canonical elements of urban theory as the Situationist practices of *dérive* and *détournement*. These ideas were conceived as part of a general approach meant to challenge the built hierarchy of the capitalist city. They aimed to break down distinctions between private and public, inside and outside, use and function, to replace private space with a "borderless" public surface. Naveh made references to the work of Georges Bataille as well, who also spoke of a desire to attack architecture: his call to arms was meant to dismantle the rigid rationalism of a postwar order, to escape "the architectural straitjacket," and to liberate repressed human desires.

These ideas and tactics reflected a general lack of confidence in the capacity of state structures to protect or further democracy. The non-statist micro-politics of the time represented in many ways an attempt to constitute a mental and affective guerrilla at the intimate levels of the body, sexuality, and inter-subjectivity, an individual in whom the personal became subversively political. As such, these theoretical positions offered a strategy for withdrawing from the formal state apparatus into the private domain. While these tactics were conceived to transgress the established "bourgeois order" of the city, with the architectural element of the wall - domestic, urban or geopolitical - projected as an embodiment of social and political repression, in the hands of the Israeli military, tactics inspired by these thinkers were projected as the basis for an attack on an "enemy" city. Education in the humanities - often believed to be the most powerful weapon against imperialism - has here been appropriated as the powerful tool of colonial power itself.

I think the reaction is quite straightforward, since you're invited to think of the city as a much more abstract space, there is a paragraph that says "the very order of the city relies on the fantasy that a wall is stable, solid and fixed."

All this is not outlined here in order to place blame on this theory, its makers or the purity of their intentions or promote an anti-theoretical approach, but in an attempt to turn our attention to the possibility that, as Herbert Marcuse suggested, with the growing integration between the various aspects of society, "contradiction and criticism" could be equally subsumed and made operative as an instrumental tool by the hegemony of power – in this case post-structuralist and even post-colonial theory by the colonial state.[5]

It seems a) very labour intensive and b) its not really a surprise, as it makes a lot of noise!

SWARMING

According to Naveh, a central category in the IDF conception of the new urban operations is "swarming." It refers to a coordinated joint action undertaken by a network form of organization whose separate units operate semi-autonomously but in general synergy with all others. The RAND corporation theorists credited with the popularization of the military implications of the term, David Ronfeldt and John Arquilla, claim that swarming was historically employed in the warfare of nomadic tribes, and is currently undertaken by different organizations across the spectrum of social political conflict – terrorists and guerrillas organization, mafia criminals as well as non-violent social activists.[6]

In our interview, Kochavi explained the way the IDF understands and employs the concept: "A state military whose enemy is scattered like a network of loosely-organized gangs [...] must liberate itself from the old concept of straight lines, units in linear formation, regiments and battalions, [...] and become itself much more diffuse and scattered, flexible and swarm-like... In fact, it must adjust itself to the stealthy capability of the enemy [...] Swarming, to my understanding, is simultaneous arrival at a target of a large number of nodes – if possible from 360 degrees [...] which then disperse and re-disperse." According to Gal Hirsh, swarming creates "noisy humming," that makes it very difficult for the enemy to know where the military is and what is its direction of movement.[7]

The assumption of low-intensity conflict, as articulated by Arquilla and Ronfeldt, is that "it takes a network to combat a network." [8] An urban combat is thus not the action of a living force upon a lifeless mass, but the collision of two networks.[9] As they adapt, mimic and learn from each other, the military and the guerrilla enter a cycle of "co-evolution." Military capabilities evolve in relation to resistance, which itself evolves in relation to transformations in military practice. However, claims for total breakdown of vertical hierarchies in contemporary militaries are largely exaggerated. Beyond the rhetoric of "self-organization"

and "flattening of hierarchy," military networks are still largely nested

The people fighting are utilising all of these evolving characteristics of battle, so the very strategy has to change [...] I'm impressed by the level of thinking (even if its to kill people).

within traditional institutional hierarchies. Non-linear swarming is performed at the very tactical end of an inherently hierarchical system.[10] Spatial non-linearity is achieved because Israel still controls all linear supply lines – the roads within the West Bank and those that connect it to its large bases within Israel proper, as well as the multiplicity of linear barriers constructed throughout it. Furthermore, "swarming" and "walking through walls" are successful when the enemy is relatively weak and disorganized, without an ability to coordinate resistance, and especially when the balance of technology, training and force is clearly on the side of the military.

The years spent successfully attacking the weak Palestinian organizations was no doubt one the reason for the incompetence that the same Israeli soldiers demonstrated when they faced in 2006 the stronger, better armed and well trained Hizbollah fighters in Lebanon. Indeed the two officers most implicated in the summer of 2006 events in Gaza and Lebanon are none other than two Israeli military graduates of OTRI, veterans of the Balata and Nablus attack in 2002, Aviv Kochavi (commander of the Gaza Division) and Gal Hirsh (commander of the northern Galilee Division 91). Kochavi, who commanded the summer 2006 attack on Gaza, stuck to his obfuscating language: "we intend to create a chaos in the Palestinian side, to jump from one place to the other, to leave the area and then return to it [...] we will use all the advantages of 'raid' rather than 'occupation.'" [11] In Lebanon Hirsh called for "raids instead of occupation," and ordered the battalions newly attached to his command and unused to the language he acquired at OTRI to "swarm" and "infest" an area. However his subordinate officers did not seem to understand what this was supposed to mean. Hirsh but was later criticized for arrogance, intellectualism and out-of touchness. Naveh, pondering the results, himself admitted in the popular media that "The war in Lebanon was a failure and I had a great part in it. What I have brought to the IDF has failed." [12]

The chaos was indeed on the Israeli side. Continuous fire and shelling by the increasingly frustrated IDF gradually cumulated villages and

neighborhoods into sharp topographies of broken concrete and glass sprouting with twisted metal bars. Within this lunar landscape, the hills of rubble were honeycombed with cavities of buried rooms, which paradoxically offered more hiding places to the guerrillas. Hizbollah fighters, themselves effectively swarming through and between this rubble and detritus of wars, sometimes using an

invisible system of tunnels, studied the maneuver of Israeli soldiers, and attacked them with anti-tank weapons precisely when they entered, organized and moved within Lebanese homes as they were used to from the cities and refugee camps of the West Bank.

LETHAL THEORY

Non-linear and network terminology has its origins in military discourse since after the end of WWII and was instrumental in the conception in 1982 of the US military doctrine of AirLand Battle which emphasized inter-service cooperation and the targeting of the enemy at its systematic bottlenecks – bridges, headquarters and supply lines – in attempts to throw it off balance. It was conceived to check Soviet invasion in Central Europe and was first applied in the Gulf War of 1991. The advance of this strand leads to the Network Centric Doctrine in the context of the Revolution in Military Affairs (RMA) after the end of the Cold War. Network Centric Warfare conceptualizes the field of military operation as distributed network-systems, woven together by information technology across the entire operational spectrum. This type of transformation, promoted by neo-conservatives such as Donald Rumsfeld, faced strong opposition within the US armed forces. This opposition recently accelerated in the context of American military failures in Iraq. The IDF is similarly, since the early 1990s, undergoing institutional conflicts in the context of these transformations. In the context of these internal conflicts, a special language based on post-structuralist theory was used to articulate the critique of the existing system, to argue for transformations, and to call for further reorganizations. As Naveh explained: "We employ critical theory primarily in order to critique the military institution itself – its fixed and heavy conceptual foundations [...]"

One of the internal conflicts within the IDF, which was conceptual as much as it was hierarchical, was articulated in the context of the debate that followed the closing down of OTRI in the spring of 2006 and the controversial suspension of Naveh and his co-director Dov Tamari. This took place in the context of the change of staff that followed the replacement of Chief of Staff Moshe Ya'alon with his rival Dan Halutz.[13] After dismantling OTRI Halutz set up an alternative institute for "operational thinking" which was based on the model of a similar department Halutz previously set up within the Air Force. Naveh understood his dismissal as "a coup against OTRI and theory"

The military debate reflects upon political questions. Naveh, together with most of his former colleagues at OTRI, supported the Israeli withdrawal from the Gaza Strip as well as the Israeli withdrawal from South Lebanon prior to its actual undertaking in 2000. He is similarly in favor of withdrawal from the West Bank. In fact, his political position is in line with what is referred to in Israel as the "Zionist left." His vote alternated between Labor and Meretz parties. Similarly, Kochavi enthusiastically accepted the command over the military operation for the evacuation and destruction of Gaza settlements, and regardless of the atrocities he was accused of in Gaza is similarly understood as a "leftist" officer. According to Naveh, Israel's operational paradigm should seek to replace presence in occupied areas with the capacity to move through them, and produce in them what he called "effects," which are "military operations such as aerial attacks or commando raids... that affect the enemy psychologically and organizationally." The new tactics are meant to maintain security domination in the Palestinian areas evacuated, and their development was seen in fact as a precondition for withdrawal. Withdrawal is understood within the IDF as depending on Israel's capacity to cancel it in emergency situations it could itself define. This undoubtedly undoes much of the perceived symmetrical nature of borders, embodied by the iconography of West Bank Wall, and by all the recent diplomatic rhetoric that would like to regard whatever polity remains (fragmented and perforated as it may be) on the other side of this Wall as a Palestinian state. Following this logic Naveh claimed that "whatever line they [the politicians] could agree upon – there they should put the fence [Wall]. This is okay with me... but as long as I can cross this fence. What we need is not to be there, but [...] to act there. [...] Withdrawal is not the end of the story." In this respect, the large "state wall" is conceptualized in similar terms to the house wall – as a transparent and permeable medium that could

So the military became too conservative, and they employed more anarchist concepts to redefine warfare, from Deleuze and so on.

allow the Israeli military to "smoothly" move through and across it.

A comparison between the attacks in 2002 on Jenin and Nablus would reveal the paradox that renders the overall effect of the leftist officers even more destructive. A hole in the wall may not be as devastating as the complete destruction of the home, but considering local and international opposition, if the occupation forces were not able to enter refugee camps without having to destroy them as they did in Jenin, they would most likely not attack refugee camps, and definitely not as often as they do now that they have found the tool to do so. Instead of entering a political process of negotiation with Hamas, military confidence is finding a solution for the government to avoid politics.

WALLS AND LAWS

In siege warfare, the breaching of the outer wall signaled the destruction of the sovereignty of the city-state. Accordingly, the "art" of siege warfare historically engaged with the geometries of city walls and with the development of equally complex technologies for approaching and breaching them. Contemporary urban combat, on the other hand, is increasingly concerned with methods of transgressing the limitations embodied by the domestic wall. In this respect, it might be useful to think of the city's (domestic) walls as one would think about the (civic) city wall – as operative edges of the law and the condition of democratic urban life.

According to Hannah Arendt, the political realm of the Greek city

Events that might have happened in a more euclidean version of military action, instead here happen in a very different order, this contingent order, so its much more about the unexpectedness.

was guaranteed by these two kinds of walls (or wall-like laws): the wall surrounding the city, which defined the zone of the political; and the walls separating private space from the public domain, ensuring the autonomy of the domestic realm. "The one harbored and enclosed political life as the other sheltered and protected the biological life process of the family." [14] The very order of the city relies thus on the fantasy of a wall as stable, solid, and fixed. Indeed, architectural discourse tends to otherwise see walls as architecture's irreducible givens. The military practice of "walking through walls" – on the scale of the house, the city or the "state" – links the physical properties of construction with this syntax of architectural, social and political orders. New technologies developed to allow soldiers to see living organisms through walls, and to facilitate their ability to walk and fire weapons through them, thus address not only the materiality of the wall, but also its very concept. With the wall no longer physically or conceptually solid or legally impenetrable, the functional spatial syntax that it created – the separation between inside and outside, private and public – collapses. Without these walls, Arendt continues, "there might have been an agglomeration of houses, a town (asty), but not a city, a political community." [15] The distinction between a city, as a political domain, and a town (here, the antithesis to the city must be understood as the refugee camp) is based on the conceptual solidity of the elements that safeguard both public and private domains. Agamben's well-known observation follows the trace left by Arendt: in the camps, "city and house became indistinguishable." [16] The breaching of the physical, visual, and conceptual border / wall exposes new domains to political power, offering thus a physical diagram to the concept of the "state of exception."

When Kochavi claims that "space is only an interpretation," and that his movement through and across the built fabric of the city reinterprets architectural elements (walls, windows, and doors); when Naveh claims that he would accept any border as long as he could walk through it, they use a transgressive theoretical

approach to suggest that war and fighting is no longer about the destruction of space, but rather about its "reorganization." If a

wall is only the signifier of a "wall," marking scales of political orders, un-walling also becomes a form of rewriting – a constant process of undoing – fueled by theory. If moving through walls becomes the method for "reinterpreting space," and if the nature of space is "relative" to this form of interpretation, could this "reinterpretation" kill?

If the answer is "yes," then the "inverse geometry" that turns the city "inside out," shuffling its private and public spaces, and that turns the idea of a "Palestinian State" outside in, would bring about consequences for military operations that go beyond physical and social destruction and force us to reflect upon the "conceptual destruction" of political categories that they imply.