

# Liquefying Social Capital

## On the Bio-politics of Digital Circulation in a Palestinian Refugee Camp

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**Abstract:** This article discusses the biopolitical dimension of digital circulation in the specific context of refugee relief. Drawing up on observational fieldwork conducted in Nahr el Bared, one of the largest Palestinian refugee camps in North Lebanon, it explores how the digital capture of social and spatial evidences fundamentally transforms the social capital invested in local knowledge, gradually eroding critical capacities for community self-governance. Building upon the concept of “data derivatives” developed by Louise Amore’s, the article focuses in particular on the speculative dimension of data to suggest that the conversion of an embodied memory into data-based forms provides powerful means for rendering unsanctioned claims of ownership and belonging visible, actionable and effective. At the same time it opens up new modes of “probalistic containment” that restrict individual and collective life chances under the pretext of democratic participation and empowerment.

**Keywords:** Data derivatives; bio-politics; social capital; risk; speculation; political claim making.

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### I. Introduction

Documentary evidence has been a key site of struggle for Palestinians. The forced creation of the state of Israel (1948) not only dispossessed the population of land, property and material assets but also destroyed vital cultural and historical resources testifying to the Palestinian experience. The long-term implications of this are most acutely felt in the more than fifty refugee camps spread across the Arab region. Managed by UN agencies and international non-governmental organisations the camps exist in

a political and legal limbo that left large parts of their social and spatial history undocumented or only partially accounted for<sup>1</sup>.

The structural crisis of memory reached a new high when one of the largest camps in North Lebanon, Nahr el Bared, was completely destroyed in 2007. The event left deprived the refugees of all formal documentation to reclaim what they had lost. It required aid agencies and planners to draw on oral testimonies from the refugees to retrieve the camp's historically grown spatial syntax so as to ensure the camp could be rebuilt similar to the way it was before. Over the course of two years, architects sat with each family to identify the exact size and location of refugee homes using satellite driven Geographic Information Systems (GIS) and participatory planning methods. The collaborative effort of mapping and reassembling Nahr el Bared turned data into a critical currency to retrieve lost property and assets. Yet, at the same time and in fact because of that very reason, the community's participation also became a site of severe power struggles as those, in control of vital information, were able to gain material and strategic advantages at the expense of the rest of the refugees. What's more, the digital maps provided aid agencies and government bodies with unprecedented access to the source code of the camp's lived an embodied memory with radical consequences for the ways in which this memory would henceforth be recorded and accounted for.

Taking the participatory mapping of Nahr el Bared as a starting point, this article develops an analysis of the specific modes of enclosure and containment afforded by digital circulation in the specific context of humanitarian practice. Drawing on the concept of "data derivatives" developed by Louise Amoore (2011) I explore how the digitisation and institutional processing of spatial and temporal evidences brought competing measures of risk, opportunity, security and value into collision, and embedded the refugees in an ambience of bio-political calculations that fundamentally undermined the refugee's ability to reclaim their historical achievements in Lebanon.

The informal nature of refugee property provides a suitable context to explore the tensions and contradictions involved when improvised social arrangements are captured into geo-spatial data sets circulating across social and technical registers. These tensions reveal how the expressive force of data – their ability to multiply and reassemble lived and embod-

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<sup>1</sup> I don't mean to suggest that nothing has been written about Palestinian camps. To the contrary. Palestinian camps are some of the most researched places in the world. I am referring to the highly selective and fragmented collection of spatial and socio demographic data that has defined the work of international aid agencies and UNRWA, the main UN agency in charge of the welfare of Palestinian refugees. For an insightful analysis how refugees experience the over-exposure to academic scholars and self-appointed activists see Khalili (2007), Sukarih&Tannoc (2012) or Allen (2014).

ied substance into new, derivative forms – can, on one hand, render un-sanctioned claims of ownership and belonging actionable and effective while at the same time reconfiguring the very values, perceptions and meanings they engender and represent. My specific interest here lies in the modes of capture and escape that the conversion of lived and embodied memory into digital derivatives enables in an environment where institutional mechanisms of protection are largely absent or weak.

Derivatives, in their most basic understanding, refer to forms derived from another source. Data derivatives are a specific instance of such an inferences and can best be understood as the re-aggregation of disassembled data on the basis of coded association rules (Amoore 2011, 27). What is at stake in such moment of data-fication, I suggest, is not just the objectification of historically contingent social arrangements but a radical re-configuration of the networks through which mutual commitments and obligations are established and that sustain lines of trust, solidarity and the types of claims they occasion – both in a material and political sense. It's the transformation of these mutual commitments and obligations that I will be most concerned with in this paper and that the title "liquefying social capital" signifies.

Social capital, in the sociological literature, stands for the social knowledge and connections that enable people to accomplish their goals and extend their influence in a given setting. It involves useful social networks, trust and mutual obligations but also an understanding of the norms that govern behaviour and that enables people to act effectively (Giddens 2013, 855). These precious resources are of particular importance in informal settings such as Nahr el Bared where legal mechanisms and the institutional protection of rights and entitlements are mostly absent or compromised. In such conditions people depend by and large on informal networks and agreements to further their interests. To do this requires a careful management of personal contacts, knowledge and connections so as to ensure that someone's word or promise can sufficiently replace legal guarantees. The collective effort of mapping Nahr el Bared displaced this vital knowledge into institutional registers far removed from the day to day reality of struggle, opening them up to logics of exchange and calculation that put the collective desire to preserve the camp as political symbol and sanctuary in open conflict with desperate material needs.

## **2. Mapping, Empowerment and Community Cohesion**

Scholars in critical geography have elaborated extensively on the potential and limits of participatory GIS in regards to community empowerment and democratisation. Participatory GIS draws upon the collaborative practices of action research that aim to transform power relations to the benefit of disadvantaged groups (Elwood 2006a, 199). One of its key

goals is to give voice to local populations and to put non-specialised knowledge on equal footing with expert regimes (McCall and Dunn 2012, 85). Yet, as numerous studies show, community driven GIS may give local publics an active stake in the planning process (Ventura et al. 2002; Abbott 2003; Sliuzas 2003; Elwood 2006b) but, as it does so, it also proliferates new ways of controlling the flow of data and knowledge which fundamentally undermines the promise of redistributing power back to local communities (Pickles 1995; Brodnig and Mayer-Schoenberger 2000; Elwood 2001; McCall and Dunn 2012).

There is, thus, an inherent tension between mechanisms of control and surveillance in mapping practices and the lines of resistance they occasion that can never be fully resolved. As Wilson (2011, 858) remarks, participatory GIS always involves both: a disciplining of local knowledge that encodes communal spaces according to its own logical standards while at the same time opening up new channels for contestation that provide local communities with the informational resource necessary to articulate preferred alternatives (Brodnig and Mayer-Schoenberger 2000; Elwood 2001; McCall and Dunn 2012). Against this backdrop it becomes clear that the production and circulation of spatial data cannot be understood independent of the matrix of strategic relations in which data is operationalized and actioned and that shapes the political production of self-knowledge as such (Wilson 2011, 585).

Foucault's concept of *bio-power* has long provided a primary reference point for the analysis of information as technology of power. Critics of humanitarianism have used it to describe the distinct calculus of life at work in relief operations, that puts aid workers in a position to nurture and abandon life through the management of calorie intake and the tracking of health indicators or housing conditions and the like (Fassin 2010; Feldmann 2012)<sup>2</sup>.

Contemporary information technologies such as mobile communication, the internet, electronic surveillance, and communication satellites have radically expanded the capacity to control and manipulate life on the level of statistical calculation. Their ever expanding capacity to track movements, transactions, and desires in real time invested technologies of government with new anticipatory potentials which shifted the debate away from the probabilities of life as a general principle towards the specific modes of abstraction facilitated by predictive analytics and algorithmic governance. As Hansen (2014, 39) observes: "What accounts for the singularity of contemporary media is... that they impact experience on a

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<sup>2</sup> The concept of bio-politics forms part of Foucault's (2003; 2008). Wider critique of sovereignty and juridical-political conceptions of power. In its broadest sense it refers to the management of populations through expert knowledge: the counting, studying and defining of species and their productive requirements with the overall aim of legitimizing the state as central harbinger of the wellbeing of society as such (Lazzarato 2002).

much broader basis than consciousness. They literally seep into the texture of experience, forming a background, a peripheral ‘calculative ambience’, that indirectly flavors any and all resulting events or phenomena”.

The main point to be taken away from these accounts for the discussion here is that data matters: both in the sense that they work on and through bodies, designs, objects and materials but also in the sense that they are generative of sensibilities, affects, and desires that escape human conscious yet that remain central to the production of social and cultural subjectivity nonetheless (Hansen 2014, 39). And yet, the datafication of human subjectivity also matters in yet another way, insofar as it multiplies and diffracts corporeal forms into liquid assemblages of informational properties and values that can be infinitely reconfigured, encoded and rearranged. Amoore’s (2011) work on the use of algorithmically calculated risk flags in electronic border policing provides a vivid example here. Coining the notion of “data derivatives” she describes how border management systems particularize individuals into persons of interest by selectively re-assembling personal data into risk profiles – data derivatives – that are constantly updated and reassembled according to predefined association rules. These rules of association do not draw on the full spectrum of knowledge that exists about a person but are based on probabilistic calculations about possible movements, tendencies or behaviors that position individuals along preconceived risk scores. As Amoore (2011, 28) explains, data derivatives are not centered on who a person is or what the data actually says about her, but on what can be inferred and imagined about who she might be, according to algorithmically calculated probabilities. Thus, just like financial derivatives, data derivatives remain fundamentally indifferent to their underlying object. They project into the gaps and uncertainties of their own imagination as they render speculative scenarios into actionable form.

This capacity to create a new reality around an object, as Appadurai (2015, 231) suggests, constitutes a novel form of mediation, revealing its effects as a particular mode of materialization rather than representing pre-given forms. What materializes itself in data derivatives, in other words, is the ever evolving distance between a person and its data proxy that allows for the instalment of “ontologies of association” (Amoore, 2011, 27) in which mere assumptions and correlations between data fragments can be actioned into effective interventions or policies. Hence, it’s not actual events but the probability of their occurrence that renders data derivatives operational and effective, irrespective of whether the assumed scenario in fact happens or not. In Amoore’s (ibid.) words, it’s the relation itself that renders data into an encoded course of action, assigning them a plane of actuality in their own right.

Building upon Amoore’s work I am interested in the speculative potentials afforded by the selective assemblage of data fragments in Nahr el Bared. Thus I am using the concept of data derivatives not to describe algorithmically coded risk profiles but to discuss the particular rules of as-

sociation created by social and institutional risk calculations in the specific context of refugee relief. It's in this sense that I will use the term "probalistic containment" to refer to the specific modes of curtailment the production and circulation of spatial and temporal evidences enables as they are filtered through the political and strategic considerations of humanitarian actors and the state. I will show how they recalibrate individual and collective life chances on the basis of fluctuating norms they themselves engender as they bring different measures of risk, opportunity and value into conversation and encode lived and embodied knowledges along new governmental rationales.

In line with this approach I will not limit my contribution to this volume to the work of data derivatives within digital networks, but rather assess how their calculative possibilities diffract across social and technical registers, reconfiguring local environments along new communicative protocols. Following the lead of Lee and LiPuma (2002), I conceive of digital circulation as a productive surrounds – as a site of mutual transformation – in which the calculus of planning software articulates to social and institutional codes and calculations in ways that implicate digital flows in dialectics of historical struggle on multiple scales. At the heart of my discussion sits the question how data derivatives, as a specific instance of digital circulation, organize perceptions, movements and desires alongside their own speculative imagination and hold capacities for self-preservation in productive tension with the (self)-destructive impulses they entail.

### **3. About Nahr el Bared**

Nahr el Bared is one of twelve Palestinian refugee camps in Lebanon managed by UNRWA, the main UN agency in charge of the welfare of Palestinian refugees. Located 16 kilometres outside Tripoli, in the North of the country, Nahr el Bared was originally established in 1949, one year after the forceful displacement of about 800.000 Palestinians in the course of events that led up to the creation of the state of Israel (1948). The camp moved the center of international attention in 2007, when a small group of militants, Fatah al Islam, attacked a checkpoint of the Lebanese army, just outside the refugee settlement. Eighteen soldiers were killed in the course of the battle. The reprisal of the Lebanese military resulted in three months of continuous bombardment that destroyed the entire camp.

Fatah al Islam forms part of a wider network of militant insurgents backed by regional powers who are eager to influence political events both in Lebanon and the Arab region at large. The origins of the group remain obscure but there is evidence to suggest that they were supported

both by Saudi Arabia and Syria prior to the outbreak of war there.<sup>3</sup> Fatah al Islam has no historical roots in Nahr e Bared and no long standing relation with the refugee population. Its presence, in fact, deeply divided the refugees and the political factions in the camp.

After sixty-eight years of exile Nahr el Bared has long outgrown its original size and location. The land originally rented by UNRWA did not exceed two-hundred thousand square meters and was soon not big enough to house the second and third generation of refugees. People started to expand, first vertically by building up additional floors; then horizontally, by buying up land in the immediate vicinity of the camp. Most of these extensions were never officially registered and exist in gross violation of national zoning regulations and building codes. These homes were often built on agricultural land or without building permit. And while on the level of affect and vision this area is unmistakably part of the Nahr el Bared's urban fabric, it has never been formally recognized as such. This raised great difficulties for reconstructing Nahr el Bared because the informal status of homes and businesses made it impossible to issue official title deeds for this part of the camp.

The precarious legal condition of property in and around Nahr el Bared is a direct reflection of the many paradoxes and contradictions built into the Palestinian struggle that have for decades defined the strategic role of the camps. Up until the 1980s the camps were widely regarded as a living testimony for the unresolved promise of return to the lost homeland. They provided both the grounds and horizon for national liberation in the political imagination of Palestine (Aburahme 2015, 207). The national pedagogy of resistance, however, required to insist on the camps as temporary shelter, even if only for the sake of maintaining grounds in negotiations about a future Palestinian state.<sup>4</sup> Yet the longer forced exile endured and the less progress was made in the Arab Israeli peace talks the more this insistence on temporariness took on the form of "cruel optimism" (Berlant 2006) – a sense of tragic attachment to an object that is effectively harmful to ones ambitions or cause. Arab nations have used the right to return as a pretext to deny the refugees access to full citizenship rights, arguing that this would undermine their political aims, while the Palestinian leadership at "home" has been reluctant to address the question of return altogether, postponing it to a point in time *after* the conditions for a Palestinian state have been defined.

The temporal paradox of "permanent temporariness" confronted ar-

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<sup>3</sup> For a detailed account on the history and activities of Fatah al Islam see Gambil (2007), Rogier (2007) and Rosen (2008).

<sup>4</sup> Most refugees are well aware that they will never go back to Palestine and more and more show little inclination to do so. Yet holding on to the right to return nonetheless is imperative to them. Giving up on the idea of return would mean giving in to sixty years of systematic erasure of the Palestinian presence and is thus not available for negotiation or compromise.

chitects and planners with the difficult task of rebuilding a space that was never meant to last in the first place and to protect the material traces of a struggle whose political demands have become increasingly uncertain and unclear. Rebuilding Nahr el Bared, in this sense, involved much more than recuperating lost property and assets. It stands out as a collective attempt to reclaim visibility and recognition of a political community that has not yet been able to anchor its claims within the closed system design of Westphalian states.

Digital maps, in such a scene, can provide a powerful tool of “self-mediation” (Chouliaraki 2010, 228), in which the mere fact of a people “speaking out” about themselves can effectively replace institutionalized forms of claim making in the absence of legal guarantees. In the specific context of Nahr el Bared the maps opened up a plane of actuality that enabled the refugees to enforce senses of entitlement and belonging irrespective of their legal status and to reinstitute the camp as political space and territory through the very act of putting themselves back on the geopolitical map. Yet the fact that for Palestinians such acts of self-mediation don’t have a singular address also meant that their claims had to be relayed through a wide range of institutional registers that include: humanitarian agencies, international donors but also Lebanese governmental bodies, all of whom brought their own calculus of entitlements and needs, security and belonging to bear on the digitization of the camps spatial syntax and memory.

In what follows I explore how these competing registers of risks, responsibilities and obligations seeped into the textures of self-mediation. Building upon Amoores’ notion of “data derivatives” I will describe how the circulation of data both multiplied and reconfigured the camp in line with military and humanitarian agendas and conjured up an ambience of calculative operation that fundamentally undermined the refugee’s aspirations and goals. What I contribute to Amoores’ analysis is an assessment of the destabilising potentials of speculative data proxies. Thus I will not limit my analytical focus to risk calculations at the hands of power, but explore how they can be utilized for more subversive and empowering ends. The extent to which data derivatives remain inherently indifferent to their underlying object does not necessarily work only in support of capture and containment but may equally facilitate a fundamental redistribution of the probable or the likely to the benefit of the governed in bio-political regimes. And yet, as I will show, this empowering potential was soon lost once data became a primary tool for securing power and material gains.

The main argument I am advancing can be summarized as follows: the selective re-assembly of the refugee’s lived and embodied memory into data derivatives encoded the camp’s historical grown social and spatial syntax along new logics of risk, opportunity and value that gradually re-scripted the camp’s social and material fabric along the pre-emptive logic of humanitarian mandates and the state. This had radical consequences



for the ways in which the social capital invested in the camp space could be utilized and rendered effective. It redirected the flow of information away from the site of everyday struggle, opening it up to a new calculus of responsibilities and obligations up to a point where memory itself was turned into an object of speculative trading among the refugees. The accumulative impact of these calculative operations deeply implicated the refugees in logics of “probabilistic containment” that fundamentally undermined their shared vision to re-constitute themselves as political community and collective, while at the same time enabling some to accumulate power and material gains.

My argument builds on long term observational fieldwork conducted between 2007 and 2015. After 3 months of voluntary work for UNRWA’s planning commission in 2008, I conducted 80 semi-structured and open ended interviews and 15 focus groups between November 2009 and November 2012. These interviews included all major stakeholders in the camp, starting with the refugees themselves, the leading architects and planners as well as state representatives, UNRWA and other international aid agencies, the Palestine Liberation Organization (PLO) and the various political factions in the camp. Additional information was gathered in town hall gatherings, at social events and public protests. And I attended the bi-weekly cluster meetings in which UNRWA coordinated its relief efforts with the rest of national and international NGO’s and government representatives. The cluster meetings provided an ideal platform to trace the shifting power dynamics in the knowledge exchange between the refugees, the state and non-governmental actors and allowed me to closely monitor the political economy of data and information in the camp. Since 2012 I have been following up on events with annual field visits and direct updates from representatives of all sectors of the camp population. Prior to the publication of this article 8 additional interviews and 2 field visits were conducted between July 2015 and February 2016.

#### **4. Reconstructing Nahr el Bared**

Reconstructing refugee camps is challenging under any circumstances. What made matters particularly difficult for Nahr el Bared is the fact that after 68 years the settlement has grown into a large village with a full blown commercial infrastructure catering to the entire North of Lebanon. The camp had its own port, a thriving business landscape, ran its own mosques, hospitals and a diverse range of cultural and social institutions. Most of the socio-economic investments have been made in circumvention of national regulations, with many businesses operating from home premises without commercial licences or registered cars. The question whether and how to formalize the historical place and achievements of the refugees almost inevitable brought competing registers of legitimacy and need, ownership and belonging, risk and security into collision with

rather dramatic consequences for ability of the refugees to reclaim their historical achievements in Lebanon.

The Lebanese state had always made its approval to the reconstruction dependent on the possibility to reclaim sovereign control over Nahr el Bard and to put an end to the long-standing policy of non-interference in Palestinian internal affairs. At the same time, it confined its authority to questions of security and law enforcement, while outsourcing all social responsibilities, such as health care, schooling and housing provision, to UNRWA and international aid agencies<sup>5</sup>. These responsibilities are indeed at the core of UNRWA's legal mandate yet the obligation to rebuild refugee homes and businesses did not extend beyond the camp's original borders as established 68 years ago. This was painfully brought home to the refugees in the first damage assessment by the UN's satellite division, UNO-SAT, that compared the camps topography before and after its destruction during the 2007 war.

The aerial views occupy a curious temporal location. Instead of showing the camp in its current place, the damage assessment super imposed the settlement with a geo spatial grid that effectively repositioned Nah el Bared within its historical borders, reducing it back to its original size in 1948. This effectively cut the camp in half and divided the historically grown spatial syntax into two separate governmental districts, and two separate datasets. This enabled UNRWA to restrict its responsibility for rebuilding Nahr el Bared to the housing facilities inside its mandate area, while leaving those who settled outside its operational territory in a legal and political limbo, as neither UNRWA nor the state were under any obligation to rebuild this part of the camp.

The new boundaries in and around the camp are a direct reflection of the strategic imperatives that guided the entire reconstruction process and that fragmented the camp into a flexible assemblage of overlapping sovereignties shared between UNRWA, the Lebanese government and international donor states. Thus rather than reflecting the full spectrum of movements, transactions and spill-overs that defined the social and spatial fabric of Nahr el Bared the data collected in the damage assessment selectively re-assembled the camp alongside a matrix of calculated risks and responsibilities that moved the digital maps further and further away from the lived and embodied reality of the camp.

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<sup>5</sup> The refugees as well as Arab states were always keen to establish a direct link between UNRWA's operational mandate and UN resolution 194, in which the international community committed itself to facilitate the return of Palestinian refugees to their homes and to compensate those who chose not to do so for the loss or damages to their property. This explains why the refugees do not necessarily disagree with the decision to leave all social responsibilities with UNRWA and not the Lebanese state. For a brilliant account of the significance of refugee status and ration cards for the emergence of national conscious and awareness among Palestinian Refugees see Ilana Feldmann (2007).

One of the primary concerns for the Lebanese state, next to preventing a permanent settlement of the refugees, was to contain the possibility of further militant attacks from armed groups inside Nahr el Bared. To contain this risk, the camp was enclosed behind five military checkpoints that policed all exits and entrances with a rigid permit regime. This not only curtailed the free movement of goods and people but effectively destroyed the vibrant local economy of Nahr el Bared as customers from outside were no longer able to access the camp.

The national consensus to pre-empt a permanent settlement of the refugees together with the new permit regime transferred most of the risks and responsibilities back to the refugees, nurturing the impression that they are held collectively responsible for the actions of a group that had no substantive connection to the camp. Confronted with these severe political, legal and military restrictions on all fronts the refugees soon came to realize that the war had not only destroyed precious homes, property and businesses but one of their most valuable assets: the self-sufficiency, and independence they were able to establish through individual and shared investments in the camp. It took more than 3 years to negotiate a compromise that enabled those, who had settled outside the camp's original territory, to obtain a building permit for conducting simple repair works. Yet this agreement did not extend to completely destroyed homes<sup>6</sup>.

The risk calculus of UNRWA and the state provides a powerful example for the specific modes of "probalistic containment" facilitated by data derivatives in humanitarian operations. They selectively re-assembled the camp's spatial history into new topographical arrangements that made the visibility and recognition of refugee property and people's eligibility for compensation ever more dependent on their legal status and their geographic position within the mandate territories of humanitarian actors and the state. This systematically reduced the number of possibilities for the refugees to rebuild their lives and futures and effectively confined the spatial and temporal horizons of their spatial memory to the legal and political imaginations built into the digital maps of the camp. The strategic indifference of these maps towards the historically grown reality of Nahr el Bared had far reaching consequences for the ways in which material and affective investments in the camp could be rendered effective. It facilitated a radical recalibration of the mutual commitments and social arrangements based on which the camp's spatial syntax had

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<sup>6</sup> Sales contracts in Lebanon are only considered valid if they are registered with the state. The fact that hardly any of the private homeowners had registered their land acquisition in the national cadaster rendered the majority of buildings outside UNRWA's main mandate area illegitimate. The agreement with the government left about 100 fully destroyed homes' owners unable to rebuild their homes leading many to simply pay off military officials to bypass the discriminatory policies of Lebanon.

developed, reconfiguring them alongside ontologies of association that reflected above all the strategic interests of aid agencies and the Lebanese State.

## 5. Liquefying Nahr el Bared's Social Capital

The precarious social and political situation of the Palestinian refugees has always extended the value of trust, local knowledge and friendship relations far beyond the interests and needs of individuals. This trust provided the primary backbone for the maintenance and reproduction of individual and collective life in an environment that has grown increasingly hostile to their presence and needs. Being able to rely on each other and to pool resources allowed the refugees to confront the day-to-day challenges of survival under conditions of structural invisibility and attrition. The gradual extension of Nahr el Bared into the surrounding villages gives vivid evidence of this. It testifies to the resourcefulness with which the refugee population has learned to circumvent their political and economic curtailment. Caught in-between the resistance to assimilate into the Lebanese body politic and the impossibility of returning, Palestinians gradually started to redirect their expectations away from the grand project of national liberation and to invest in their immediate future ahead. Their geographic position in one of the poorest regions of Lebanon, Akkar, next to the Syrian border provided a significant advantage here.

Akkar has always suffered from severe neglect by the central state administration. The shared experience of abandonment among Palestinian and Lebanese provided fertile grounds to build up a complex web of network relations, in which goods, services, land and infrastructures could be traded for money or through mechanisms of reciprocal exchange. Transactions between the camp and the surrounding villages were not confined to commercial activities, land sales, intermarriage and friendships. The first generation of refugees also introduced a whole new set of knowledge to the area, drawing upon its extensive experience in citrus and olive production to enhance local farming practices with new agricultural expertise. These day to day interactions enabled the refugees to extend their presence further and further into the neighbouring villages turning emergent needs and aspirations into a powerful medium for the camp's further growth.

Against this backdrop the informal extension of Nahr al Bared can be described as a remarkable historical achievement. It delineates a space of opportunity that hardly any other camp in Lebanon was able to establish. It's unique economic success made it possible for the refugees to reinsert their lives into a matrix of possibility of their own making, in which horizons of expectation were no longer dependent on the financial capacities of international aid agencies and donors but on their own entrepreneurial spirit and creativity. The war of 2007 severely disrupted this real time

economy of goods and favours and exposed the camp to a whole new set of strategic calculations that no longer corresponded with the refugee's immediate aspirations and needs.

The rigid checkpoint regime rendered time honoured social contracts and arrangements between the camp and its neighbours ineffective. Unable to rebuild their strong socio-economic ties left both populations ever more dependent on humanitarian aid and emergency funding, turning what was once a self-sufficient community of destiny into passive recipients but also into active rivals in the political economy of humanitarian aid.

The data collected on Nahr el Bared provided the key technology for this redistribution of opportunities and potentials. It provided the state and humanitarian actors with access to vital information that had never been available to them before. The circulation of data on each family's socio-demographic condition, income and property between funding agencies and governmental bodies allowed to directly monitor and control the distribution of resources and potentials and to re-align individual and collective interests and aspirations in accordance with the political and operational mandates of humanitarian actors and the state. Members of the former "camp elite", who were able to acquire private property outside UNRWA's mandate area, suddenly found themselves in the weakest position. The informal status of many land and business holdings not only obstructed the repair and reconstruction of homes or businesses but also posed severe obstacles to the distribution of international funds. This tied the refugee's capacity to retrieve past investments in the camps social and material infrastructure ever closer to information exchange networks far removed from the necessities of day-to-day survival, leaving the refugees with little or no control over the benefits and values of their investments in the camp<sup>7</sup>.

The displacement of local knowledge together with the newly imposed economic dependency severely undermined the long-standing commitments and mutual obligations that had stabilized social differences and relations in the past. These relations were by no means harmonious or grounded in a shared belief in social equality and community cohesion. To the contrary, Nahr el Bared was known for its competitive and self-exploitative business culture, yet the accumulative impact of these individual investments always also nurtured the interests and needs of all residents in and around the camp. Nahr el Bared had around 1.500 local businesses providing thousands of jobs for the refugees. The sudden in-

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<sup>7</sup> That, together with the fact that, since 2001, Palestinians can no longer own property in Lebanon, left refugees without any legal mechanism to rebuild their assets and to formalize their presence. It took more than 3 years to negotiate a compromise with the Lebanese government according to which simple repairs works could be conducted without sales contracts and building permits, yet this did not include the full blown reconstruction of completely destroyed homes.

flux of aid agencies and law enforcement relayed these potentials into the augmented sphere of calculated risks and potentials, that made the return of investment in the camp's social and material infrastructure contingent on fitting into institutionalized registers of eligibility and need. Caught in this new state of instituted paralysis the refugees quickly adjusted their strategies and tactics to the new *raison d'état* and started to skilfully exploit the ever-evolving distance between the calculus of rights and entitlements driving the reconstruction process and their actual aspirations and demands. The intense negotiations between the families and planners about the size and design of their new homes in the UNRWA mandate territory are instructive here.

## 6. Data Derivatives as a Source of Value Creation

Homes with the number of family members born into a house. With each new married son, an extra floor would be added to make room for the newlywed couple. These informal extensions were not just about accommodating to the natural growth of the population. They maintained an unspoken social contract between family members of different generations. Each floor added, were two extra pairs of hands to count on in times of hardship and old age.

The mapping process radically changed these fluid and flexible arrangements, as architects and planners started to divide each building into individual residential units and to assign each one of them to a distinct member of the family. This made it easier to organise the planning process and to distribute material gifts from donors, i.e. doors, bathrooms or kitchen sets. While grateful for the support they received, the camp residents soon started to complain that their homes were divided into itemised objects on an abstract planning grid. Some perceived the spatial rational of the planners as an unwanted intrusion that disrupted the unspoken contract of reciprocity and mutual obligation on which collective ownership of a family home had been established in the past (Interview, Nahr el Bared, May 22, 2010). Others quickly seized the opportunity and happily divided their homes into as many units as possible, so as to maximise their potential for compensation checks<sup>8</sup>. This created a gross imbalance in the distribution of payments and generated a lot of anger and frustration among the refugees.

The rasterized planning grid of humanitarian agencies and planners fundamentally rearranged the ontology of association that had defined

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<sup>8</sup> Such checks were issued by UNRWA to replace lost furniture. The total sum of money available was calculated per residential unit and not according to the size or need of individual families. Thus, a home defined as one residential unit, housing a family of thirteen, would get one check, while a house composed of four units, with only two people living in each, would get four checks.

senses of ownership and belonging in UNRWA managed housing compounds. It effectively recalibrated rights and entitlements along a liberalist model of propertied citizen-subjects that stood in harsh contradiction to the practice of sharing and co-habitation that defined people's sense of ownership in the past. Yet, the refugees were by no means just passive victims but deeply implicated in the gross injustices and imbalance created by the reconstruction regime.

The ambition to make people's personal memory the primary basis of planning always carried the risk of encouraging gross exaggerations and tactical manipulation by the refugees. The mere fact that they were included in the planning process, after all, was by no means a guarantee that the information they provided was in fact valid and accurate. Many overstated the value and size of their homes and businesses making it necessary to carefully check and evaluate people's personal accounts against the testimony of friends and neighbours. The final verdict over a family's property lay in the hand of community elders who spearheaded the validation process and mediated in case of conflict or contradictory reports. Yet their judgement turned out not to be reliable either, as UNRWA soon received complaints that some residents were forced to sign off on less space than they actually had. Some of the community elders had used their mediating power to their own advantage and redistributed available square meters from one family to another in exchange for favours and status rewards. This required to revalidate all information provided by the complaining parties and to find a fair mechanism to compensate them for their loss. As one of the planners later remarked: "The validation process has slowed down the reconstruction tremendously and wasted vital resources of time and money UNRWA never really had" (Interview, Beirut, September 10<sup>th</sup>, 2015). The tensions were in the end resolved by offering all those, who had lost substantive amounts of space, additional square meters in buildings still under construction. They were of little practical use to the affected families and hence were quickly sold to the future owners of the respective homes. The price of one square meter could climb up to US 300\$, according to one engineer (Interview, September 10<sup>th</sup>, 2015).

It's here where the data derivatives reveal their effect as highly ambivalent platform of self mediation. The circulation of social and spatial data not only realigned individual hopes and expectations along competitive principles of value creation but redirected modes of attunement away from the shared commitment to preserve Nahr el Bared, turning people's affective and material investment in the camp into a key asset to secure individual advantages, power and control.

Up until today UNRWA has not been able to secure the total budget needed to rebuild Nahr el Bared. Out of the total projected cost of \$345 million only 58% of the funds have been secured. This meant that 50% of the refugee homes remain uncompleted, leaving the future of about 2.000 families, 10.000 people, unclear. 8 years into the reconstruction in-

ternational donors have long directed their attention away from Nahr el Bared to support new, upcoming crises, such as the massive influx of Syrian refugees into Lebanon. Against this backdrop the prospects of finishing the reconstruction of Nahr el Bared appear rather unlikely. It remains uncertain if the remaining homes will ever be rebuilt.

## 7. Concluding Remarks

To address one's participation calculatively, as Allen Pottage (2010, 123) remarks in regards to collaborative research, is much more significant in the replication of contemporary bio-power than conventional forms of sovereignty: "It instrumentalizes the notion of freedom as a medium for its own curtailment and disguises intentionally placed mechanisms of constraint behind a rhetoric of collaboration and choice". In this paper, I have examined how this replication of bio-power is further amplified by the speculative potential of data generated through participatory mapping regimes. The inclusion of populations in the production governmental data, as the example of Nahr el Bared shows, certainly decentralises power over-life to the benefit of the governed but it also opens up new forms of subjectification that render participants into active accomplices in the political optimisation of individual and collective life chances under the pretext of inclusion and empowerment.

This inherent ambivalence calls for new concepts and approaches to understand the specificity of calculative manoeuvres afforded by digital circulation and its bio-political effects. Extending the Foucauldian concept of bio-power I have conceptualized these effects as a distinct mode of "probalistic containment" in which the source and authority of governmental rationalities is displaced into the realm of speculation and, hence, inherently uncertain and unclear. Thus "probalistic containment", here, refers to the specific modes of curtailment afforded by the selective assemblage spatial and temporal evidences into data proxies once they are processed through the risk calculus of humanitarian actors and the state. In the specific context of Nahr el Bared it revealed how digital maps multiplied the number of possible states in which the camp come to exists and was able to reaffirm its place as a social and political location, while at the same time opening them up new forms of enclosure on the level of calculated risks and potentials that fundamentally undermined the refugee's existence as autonomous, self-sufficient political community.

Collectively held knowledge is one of the most precious resources available to populations who have little more than their memory to affirm their existence on the geopolitical map. It constitutes a critical domain of sovereignty in the realm of self-narration that allows those, who have so far been deprived of political autonomy and self-determination to control how they become visible, recognisable and addressable as stakeholders, constituencies and political force. The collective effort of mapping and



reassembling Nahr el Bared certainly increased these potentials by adding new layers of materiality to the camp space and enabled the refugees to convert their structural invisibility into an actionable presence in data-based form. The fundamental indifference of data derivatives towards their underlying object afforded the camp population with new tactical manoeuvres to enforce unsanctioned claims of ownership and belonging and to transform long standing legal and political deficits into moral obligations through which the lack of legal protection could be compensated and redeemed. Yet this ability to create a whole new reality around the camp's historically grown spatial syntax also made room for a series of new contracts to be established that rendered everything that escaped the calculative register of the state and humanitarian actors illegitimate, inactionable or ineffective, and thus obsolete. These rather ambivalent effects were neither inevitable nor a sole function of the speculative potentials afforded by digital maps and data. They rather reflect how the procedural frictions between social and computational logics of measuring, counting, and envisioning communal space articulate to the calculus of risks, responsibilities and obligations of humanitarian actors and the state. In the case of Nahr el Bard, these tensions not only facilitated a radical rezoning of the camps territorial borders but afforded a radical re-scripting of actions, expectations and imaginative horizons that deeply implicated the refugees in the gradual erosion of their collective bargaining power *vis-a-vis* UNRWA and the state. The conversion of lived and embodied memory into digital aggregates, in this sense, went hand in hand with a radical transformation of the social and strategic capital invested in the camp space. It conjured up an ambience of opportunistic calculations that turned memory itself into a tradable asset leading some to exchange time honoured, collective stakes in the camps history and future against individual advantages and material gains.

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