Cairo's *Zabbaleen*. (Dis-)entangling the urban and social geography of informal livelihoods in a globalized megacity

Les zabbâlin du Caire. (Dés)emmêler la géographie urbaine et sociale des moyens de subsistances informels dans une mégapole mondialisée

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CAIRO'S *ZABBALEEN*.
(DIS-)ENTANGLING THE URBAN AND SOCIAL
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IN A GLOBALIZED MEGACITY

ABSTRACT

This article looks into the changes having impacted on the livelihoods of Cairo's *zabbaleen* since the beginning of the Millennium and discusses future avenues for research. Based on our fieldwork (2006, 2011, 2017) which followed an actor and household centered methodology we expose the different interwoven factors which have been influencing the functionality of this livelihood sector. These factors range from local competition to national policies and international economies. Our research revealed that in order to understand dynamics around the livelihood of waste and recycling workers in Egypt it is crucial to connect individual actions and strategies to a multi-level analysis of different social fields. Bourdieu's theories provide a rich research background in this respect which we have used adapted to broaden and substantiate the sustainable livelihood approach used in development studies. In line with other empirical research projects (see eg. Debout, Furniss, Du Roy, Desvaux) our analysis provides convincing evidence that recent research on the *zabbaleen* has contributed significantly to understand a variety of interrelated and interweaving topics such as waste management, sustainability, national and international policies, globalization and vulnerability. We therefore end our article with some concrete recommendations for future research questions that should be explored.

INTRODUCTION

The first scientific articles about the *zabbaleen* having been published more than 35 years ago, with many others following (see e.g. Heynes and el-Hakim 1979, Meyer 1987, Volpi 1996, Ghazi El Dahan 2004, Iskander 2005, Desvaux 2009, Fahmi and Sutton 2010, Debout and Florin 2011, Didero 2012, Kuppinge 2013, Debout 2012, Furniss 2012, Du Roy 2014), one might raise the question if this is not a topic that has been sufficiently dwelled upon by researchers from different regions of the world. While “ordinary” middle or upper class residents in Cairo believe that researchers and “foreign TV stations should not report about our landfills when Egypt has so many beautiful aspects to show”¹, this article will show that from a scientific point of view neither the *zabbaleen* nor the waste and recycling system in Egypt should be considered an over researched topic.

During the past 15 years a number of major structural changes have shaken the *zabbaleen*’s livelihoods, thereby asking for renewed interest and research into this topic. The first major shock was the governmental decision to modernize the waste disposal system which resulted in the commissioning of several European multinationals to take over the waste removal in 2002. The effects of this crisis were exacerbated by the governmental decision in 2009 to slaughter all the pigs raised by the *zabbaleen*—presumably because of sanitary and health reasons. This article discusses the question how the *zabbaleen* have reacted and adapted to these consecutive shocks and changes.

In the first part of the article we analyse how the *zabbaleen* have reacted to these shocks drawing on fieldwork in two different *zabbaleen* settlements in 2006 and 2011. In the following chapter, preliminary findings from a short field visit in 2017 will be used to update the analysis and complement it by including the more general political and economic changes impacting on the *zabbaleen* community as well as on the other Egyptian’s lives. These include the world economic crisis in 2008, the Egyptian “revolution” in 2011 and the economic crisis related to the devaluation of the Egyptian pound in 2016. Based on these findings, the conclusion will discuss how far the *zabbaleen* and the solid waste system in Egypt have been sufficiently explored or whether they have further important research topics on hold.

1 This was the view advanced by the German author’s landlady in Mohandesseen in 2003.

INFORMAL LIVELIHOODS AND DEVELOPMENT GEOGRAPHY: LESSONS LEARNED FROM THE ZABBALEEN

The following chapter first provides a very brief historical synopsis and summarizes how Cairo's waste management system has changed recently before presenting in more details the methodology, analytical framework and the main findings of our case study.

Waste as a lifeline? Significant turning points for the zabbaleen since the new millennium

The beginning of the current waste management system in Cairo dates back to the 1930s at least (Meyer 1987). At the outset the system was informal in the sense that it relied on activities of individual (and organized) actors "unregulated by the state in a context where similar activities are so regulated" (Roberts 1994: 6). In a rather straightforward way, one group of Coptic immigrants (called "zabbaleen") collected the waste from the residents to feed it to their pigs and sell the recyclable materials, while a second group of internal migrants (called "Wahis") organized the collection routes and collected garbage fees from the residents (Haynes and El-Hakim 1979).

The 1980s and 1990s witnessed both a partial formalization of the system and a profound socioeconomic stratification of the garbage collector's "community". Recycling workshops facilitated by local NGOs provided some of the *zabbaleen* with additional income sources. In addition, the newly established Cairo Cleaning and Beautification Authority and its counterpart in the governorate of Giza (CCBA/GCBA) issued waste collection licenses, but to officially registered companies only. Later on the use of donkey cars were prohibited in the city. Both decisions contributed to the social ascent of the Wahis and those *zabbaleen* having the means (and social relations) needed for the acquisition of lorries and official licenses. Since most garbage-collectors relied only on informal contracts with the license holders, at the turn of the millennium the system can be characterised as both "semi-formal" and "semi-private"² (Didero 2012: 34). The *zabbaleen* "community" at that time included all types of socio-economic positions, ranging from (female) day labourers precariously employed in waste sorting activities to business tycoons earning high incomes from the whole sale of recyclables or animals.

This meant that all of them were affected – albeit in different ways and degrees – when in 2002 and 2003 the governorates of Cairo and Giza decided to contract five foreign and three local companies (Debout and Florin 2011)

2 The public authorities (CCBA/GCBA) were not only responsible for issuing the licenses, but also had their own employees responsible for the cleaning of the streets and the administration and upkeep of the official landfills.

for the garbage collection and street cleaning in Greater Cairo. Since the contracts did not include any kind of stipulations and provisions as to the integration of the old micro-system of waste management into the new contracts, this new step towards a “modernisation” and “multi-nationalisation” of the waste sector³ seemed to deal a decisive blow to the revenues and livelihoods of all those having lived off this trade in more or less informal/formal ways before. However, for a number of reasons related to uninformed decisions by the multinationals as well as vested interests and adverse actions by diverse local authorities and the *zabbaleen* themselves (see e.g. Didero 2012, Desvaux 2009, and below), the informal system was impeded and became more complicated, but endured.

Only some five years later a second crisis hit the *zabbaleen*. Following the appearance of the influenza virus H1N1 in Mexico, the so-called “swine flu”, a sort of “moral panic” erupted in the Egyptian media (see Furniss 2012, Tadros 2010, Leach and Tadros 2014). Thus, in 2009 the government followed through with a decision that had been narrowly averted during the 2006 “bird flu” episode⁴ – namely to have all pigs in the capital killed. This decision deprived the *zabbaleen* of an important source of income and pulled out one of the main pillars on which the informal waste removal system had been based.

Since the pigs were fed on the organic waste the collection of which now causes costs for its disposal instead of benefits to the *zabbaleen*.

The decisions and events described above – and largely covered in the Egyptian as well as to a lesser extent in European media – raised several questions. In the following we focus on the core question of how the *zabbaleen* have coped with and adapted to these drastic changes. Chapter 2.2 introduces the methodology and the analytical framework used for the discussion of our findings in chapter 2.3. The last part of the chapter will broaden the perspective to look in more detail at the systemic factors influencing on the *zabbaleens'* livelihoods.

Methodology

Fieldwork providing answers to these research questions was conducted in two stages. A first research stay in 2006 looked into the changes caused by the introduction of the multinational waste companies. The garbage collector settlement in Ezbet Al-Nakhl (Ezbet Al-Nawar) was chosen for its size and the large variety of garbage collection, sorting, selling and recycling activities that could be observed. Having been less the object of scientific research than the

3 As pointed out i.a. by Debout and Florin (2011), the term “privatization” used widely in politics and media is not really applicable to the reform of a waste system which had relied on private sectors for many decades.

4 According to fieldwork in 2006 the *zabbaleen* were advised to kill all their poultry and work with gloves due to the risk of animal-human transmission of the disease.

community in Muqattam was another argument in favour, as well as the opportunity to collaborate with a local NGO (ECRED) which provided a calm and secure environment for the interviews. The interview partners for the twenty semi-structured interviews were selected to reflect different gender and age groups as well as a large variety of livelihood and income strategies. With a single exception⁵, all interviews were recorded, fully transcribed and translated into German by student assistants closely monitored and supervised by the author.

In 2010, a second phase of field research was scheduled in Ezbet Al-Nakhl for spring 2011 as a joint film/research project (Academy of Media Arts Cologne/ Agnes Rossa). The interviews were supposed to debunk the impact of the pig culling on the *zabbaleens'* livelihoods. Alas, in the meantime, the long-time president Hosni Mubarak was toppled. In the context of a highly instable and slightly insecure situation, the location of the field work was changed to Muqattam, where contacts to the monastery provided us with the necessary backing to film our interviews in the streets of the settlement at a moment where security forces seemed to be largely absent from the picture. Due to an incident having caused nine deaths only three weeks prior to our fieldwork, the interviews were less structured than in the first phase. Instead of specifically asking about the impact of the pig culling we asked for any perceived changes during the last 10 years. This enabled our twenty respondents to discuss all economic, political and sectarian issues that were prominently on their mind at that time. Again, all interviews were fully transcribed and translated with both Arabic and English version available for the analysis. Respondents in 2006 and 2011 included both Copts and Muslims. However, although these social categories are highly relevant in Egypt when questions of group identity and religious practices are raised, they availed to be of little relevance for an analysis of vulnerability and social positionality in the case of the *zabbaleen*. While the number of Muslim interviewees has been too low to induct any statistical information, the interviews yielded the information that – especially in the mixed neighbourhood of Ezbet Al-Nakhl Muslims can be found in all occupations and all social classes from the simple collector or employee to the richest traders and leading figures.

A shorter return visit to Muqattam in January 2017 yielded around 15 interviews with recycling and collection workers, giving some first, preliminary insights into the postrevolutionary situation and the effects of the 2016/2017 economic restructuring. Contrary to 2006 and 2011, this time no contact person from within the community was available to establish contacts. This had the advantage of a more “random” group of informants, not

5 This was not a “zabbal” but of the merchants working with the *zabbaleen*, and living in one of the new compounds at the outskirts of the city.

preselected by our key informants. The disadvantage was a much lower degree of trust (see chapter 3).

Theoretical framework

The “sustainable livelihood framework” (Chambers and Conway 1992) provided a starting point for the analysis. This framework reflects a shift in geographical development studies from the “grand theories” to smaller scale analyses focussing on individual actors and the household level (see Dörfler et al. 2003, Müller-Mahn and Verne 2010, Furniss 2012). The framework is an attempt to operationalize the concept of “social vulnerability”. Social vulnerability takes into account all those factors which enable a household to withstand external shocks and crises, thereby broadening the perspective with regard to previously prevailing exclusively economic definitions of poverty (Watts and Bohle 1993). Although these shocks have often been thought of as natural disasters or diseases, they can also be seen to include politically induced shocks such as the ones having hit the *zabbaleen*. In the case of the *zabbaleen* “external shocks” are thus intrinsically related to the “institutions, organisations, policies and legislation that shape livelihoods” which this framework relates to as “Transforming Structures and Processes”.

The analytical purchase of the concept lies in its pragmatic adoption of Bourdieu’s (and other’s) notions of “capital” as a wide variety of resources for individual livelihoods. Chambers and Conway (Chambers and Conway 1992) differentiated between natural capital (e.g. in this case “waste” recyclables as well as the pigs and other animals raised by the *Zabbaleen*), social capital (networks and benefits gained through personal relations), human capital (health as well as education), physical capital (e.g. a lorry or donkey cart) and finally financial capital (income, e.g. the garbage fees, or savings). Drawing on these resources, individual actors, embedded in household structures and relationships, can cope with risks, mitigate negative effects or enhance their livelihoods. Distinguishing between these different assets and strategies enables us to provide a nuanced account of the long-term effects of the latest changes affecting the *zabbaleens’* livelihoods.

In our case, the framework proved to be particularly useful to look firstly at the *zabbaleen* reactions to the adverse decisions by the national and local governments⁶. Thirteen years on, one can distinguish between short term reactions and long term strategies (or rather tactics, if one agrees with De Certeau’s vocabulary). Secondly the framework helps to answer the question which persons and households were most vulnerable to these shocks. The following chapter (2.3) looks at the *zabbaleens* coping strategies and the impacts on

6 For a detailed account and critical discussion of the meaning of “local government” in the Egyptian context, see Debout 2012.

their asset portfolios using mainly the information retrieved in 2006 (Ezbet Al-Nakhl) and 2011 (Muqattam). The next chapter (2.4) relates the framework of “structures and processes” to Bourdieu’s concept of social fields in order to set the Zabballeens livelihood strategies into a broader context and to analyse the complex, multi-scale power relations between the actors in the relevant social fields. This chapter will reflect the more recent and general structural changes impacting on the *zabbaleen*’s livelihoods as well as the other stakeholders within the traditional micro-system of governing waste in the capital at the turn of the Millennium.

Shock events, reactions and outcomes

In 2003, after the official “privatisation”, the *zabbaleen*’s first reactions consisted in contesting the decision. However, a demonstration in Ard Al-Lewa was dispersed by police forces and thus had no effect. A strike – which would be an efficient tool in any monolithically organized municipal waste system – was attempted in Ard Al-Lewa (Debout and Florin 2011) and Ezbet Al-Nakhl (Didero 2012). In both cases these attempts were aborted after few days, when the pig owners felt to be in dire need of organic waste to feed their animals. In Ezbet Al-Nakhl one of the “big heads” of the settlement was convoked by an important member of the local government. Immediately after this meeting he advised (ordered) “his” *zabbaleen* to resume their work⁷.

Lacking the voice and the power to revoke the decision or have the contracts revised in their favour, the *zabbaleen* had to adapt their livelihood strategies to the new system. The most vulnerable group consisted of those *zabbaleen* who owned neither Zeriba, lorry nor “collection line”. Some of them had previously been employed by wealthier *zabbaleen* or other persons involved in the economy of waste. Their employers being faced with the complete or partial loss of recyclables, employees were laid off when the revenues were not sufficient to pay their salaries (Didero 2009: 36). Of course numbers are difficult to give, but it seems that only a small group of these men employed mainly for collection work and women employed for sorting the waste changed to different occupations altogether (such as meat and textile factories, hair-dresser, baker, construction work or vendors according to interviews in 2006). Constrained through generally high unemployment rates as well as their scarce knowledge and skills outside the garbage sector (human capital), most *zabbaleen* rather used the fault lines presented by the new system to continue their work in some way.

7 Tellingly, the interview with this *Mu’allim* was the only interview which was not allowed to tape-record. The notes taken by my translator were carefully censored in order to prevent a negative imaging in front of a foreigner.

The most obvious option – to work as employees for the multinational companies – was dismissed by most respondents. Salaries were perceived as being much too low to make up for the formerly in many cases combined revenue of household collection fees and the sale of recyclables and the sale of the pigs feeding on the organic waste⁸. This problem was exacerbated by the fact that the companies found it difficult to recruit sufficient manpower (due to the low salaries and hard and stigmatized work) and therefore “outsourced” the problem by subcontracting so called “mutahid” (= Middlemen). Some of those middlemen mentioned in the interviews were identified either as a Wahy or Mu’allim (better situated Zabbal), who feel no longer bound by the formally concluded contracts. A household collector explains “There is a Wahy. He can be described as a subcontractor. He is our “commander”. He signs contracts and invoices. He is paid by the foreign company and should pay us at the beginning of each month. This is an agreement based on trust – but he has betrayed our trust” (Girgis 03/06). Even though from the point of view of the company, a Zabbal such as Girgis would be one of their (sub-contracted) employees he disagrees: “the company has nothing to do with us”.

Whether or not such an “official” subcontract had been concluded for their collection areas, many *zabbaleen* – especially those previously owning a “collection line” and waste lorries – continued their traditional door to door collection methods⁹. In this case, their sometimes longstanding relationship with the residents determined if and how many households were willing to leave their garbage to them and if they continued to pay for this service although official garbage fees were already deduced from their electricity bills. What helped the *zabbaleen* in this regard was the fact that the multinationals had not been contracted for door-to-door collection. Depending on the social and physical characteristics of the neighbourhood, they installed smaller or bigger containers in the streets. This decision proved to be a huge disadvantage for the companies and impacted negatively on the cleanliness of public spaces, but it offered some substantial advantages to the *zabbaleen* and other actors struggling creatively to make a living. Most importantly, the containers were used for the extraction of recyclables (“scavenging”, see below). In addition, many residents preferred to have the waste taken from their doorstep instead of

8 Salaries offered by the waste companies were actually low, but comparable to other similar activities (300-440 LE in 2003, see Didero 2012, 36, 530 LE in 2009, Debout 2012, 374). However, subcontracting system used by the companies meant that a large amount of these salaries was and is skinned off the middleman, leaving a de facto salary of only around 150-200 LE which is by no means sufficient provide a small family with food and accommodation only.

9 Other, but similarly informal arrangements and contracts allowed some *zabbaleen* collecting recyclables of a certain value from shops and other enterprises to continue their work after the reform (see Desvaux 2009, 85).

walking it into the street and therefore continued to provide waste and a small fee to the *zabbaleen* providing this service. Thirdly, the bins placed by the companies in the streets were used by others for the disposal of un-recyclable wastes (“abbal”) – and since 2009 also for the organic waste – which otherwise would have to be delivered to a landfill for a fee (cf. Didero 2009: 107).

The establishment of street containers gave rise to a rather new phenomenon in the Egyptian capital: The *Sarih*¹⁰, who roam the streets with their push-carts and – in a legalistic sense – “steal” recyclables such as PET bottles, metal cans or cardboard pieces, from the bins. The *zabbaleen* interviewed in 2006 reported that this activity was often taken up (or assigned to) the stronger and healthier boys and young men in a household. One of our interviewees also worked as a “roamer” in the evening after his regular household collection tour in order to enhance the family income. Because the roamers have to pass more time on the streets and cannot rely on formal or informal arrangements with residents, store owners or the local cleaning authorities, they feel much more vulnerable to reprisals by the police. Thus, while nearly all of the *zabbaleen*’s waste related activities were regarded as illicit by the police and other official actors after the reform, one can observe large variations in the degree of vulnerability related to this informal status.

Equally wide variations concern the loss (or gain) of assets as a result of the multi-nationalisation. Most *zabbaleen*, whether collecting from the households or the streets, have lost part of their former revenues – either because they no longer obtain household charges (financial income) or because the amount of recyclables they can sell, has been substantially reduced. Losses by collectors and small traders (cloth, paper) in Ezbet Al-Nahkl were estimated at 30-50% in 2006 as compared to 2002. Nabil, a former collector having converted to plastic recycling (grinding) complains: “The volume of waste/recyclables reaching our settlement has been down by 50%” (3/2006).

This loss in natural capital is related to the fact that despite the *zabbaleen*’s sustained activities the new companies collected a certain percentage of recyclable waste that is consequently transported to the waste fills or the company-owned recycling facilities. The collectors are equally suffering from

10 The term “*Sarih*” is used by the *zabbaleen* to denote persons collecting specific components from street trash. The municipalities use the term “*Nabash*”, which means the person picking things. Among the *zabbaleen* “*Sarih*” might also be a person working in the collection of cardboard and paper from different sources. While some of these latter collectors were described by a warehouse manager as earning only 200-300 LE/month in 2006, others who might have a formal-informal collection arrangement with store owners, police, companies and/or CCBA (see Desvaux 2009, 84) seem to be able to make higher incomes. Family members interviewed in 2006 mentioned that the income from this type of work was sufficiently high to pay private school fees for at least two children.

increased competition. Nabil reports: “There are unemployed people in the area. Maybe one will get a cart and shout “aish” [bread]. And the vendor of onions. He might now take one kilogram of plastic for 1 kg of onions. These items then no longer go into the garbage [collected by us]”. This story of the onion trader who takes plastic as counter value for his onions (instead of cash) shows that increasingly not only core members of the *zabbaleen* community, but also other actors within the informal local economy have become increasingly aware of the resale value and resale opportunities for recyclable materials.

Finally, the small traders experience increased competition by those former collectors who have converted to trading and recycling activities. These effects were aggravated by the pig culling in 2009 when the five to six “pig trader oligarchs”¹¹ and the smaller meat merchants as well had to diversify and redirect their investments. According to our informants working in the recycling workshops in Muqattam in 2017, this competition has increased continuously since 2006. They told us: “Today, around 50% of the recycling workers have been working as regular collectors before the reforms”.

For the *zabbaleen*, this conversion from collection and pig raising towards the recycling industry had advantages as well as drawbacks: While collection and pigs rearing was a relatively stable livelihood source, the recycling trade is much more influenced by national and international market effects. For instance, machines for recycling consume high amounts of electricity that increased their expenses according to the national increase of electricity bills (augmented in 2013, 2015, 2016). Also prices in the national and international market for recycled goods experience more substantial ups and downs than the pigs trade (see Furniss 2015, and following chapter).

When looking at the impact of the introduction of the foreign companies and the pig culling on the *zabbaleen*’s livelihood, it is important to look farther than only to the result in terms of natural or financial capital and/or the occupation of the main (male) breadwinner. Fieldwork revealed that the systemic changes/crises impacted significantly on the other household members as well. Firstly, the women who had always taken a large (if not largest) share of the work – be it income related such as the rearing of the pigs and sorting of the

11 The pig trade in Cairo has been characterized by a stable and tight oligopoly. Ever since the 1980s five to six merchants have dominated the market. They arranged prices between themselves and acted as loan givers to the *zabbaleen*, thereby establishing far-reaching dependencies (expert interview in 2006). According to Mayer (1987: 73f) the Morcos Brothers alone used to buy and process 50% of all pigs in the capital area. The pig traders have been particularly affected both by the privatisation decision and the pork culling (whereas the other wholesale traders for recyclables like plastic and cardboard have managed to retain hold of a substantial amount of their “natural capital” and thus have been more sensitive to price fluctuations on the national or international market related to the economic crisis in 2009 and 2016).

garbage or nonmonetary contributions such as domestic work and child care. While no generalizations are possible – the women's roles and positioning being quite diverse before the governmental interventions – it can be said that their everyday lives changed considerably in many cases. Some of them had to take up an “external” employment¹² either as employees for other *zabbaleen* or outside the settlements, e.g. in a factory to make up for losses in the household's waste related income. Others retained their “domestic work” but had to work longer hours (when employees had to be dismissed due to the lesser extent of waste) or worked on the contrary less hours in waste sorting (when only certain recyclables were collected by the other household members). What is interesting is that nowadays some *zabbaleen* still rear pigs, poultry and livestock (mainly goats). This is less of a business and more a sort of urban “farming” providing the families with eggs, milk and meat. However, the importance of this livelihood source (natural capital) should not be underestimated with regard to a meat price that (within a context of general inflation/devaluation of the LE, see next chapter) has nearly quadrupled in the last three years rising gradually from 50 LE in 2014 on average to 120 LE, then surging to 190 LE in 2017 after the devaluation of the Egyptian pound.

Most importantly, however, as already pointed out by Hoodfar (Hoodfar 1997) within traditional Egyptian household structures – which we found mostly reproduced in the group of our female interlocutors – women are often the ones responsible for the domestic financial issues. Thus, they are those who have to “make ends meet” and to manage the expense related part of livelihood strategies, too often overlooked in the literature (Hoodfar 1997: 188f). While an in-depth analysis of these struggles would require long-term ethnographic fieldwork, our interviews already revealed a number of important decisions taken in this regard. One option was to cancel extra expenses for the main holidays (e.g. gifts and clothes): “In the past, we used the money from the sale of the pigs to buy nice clothes for our children. We bought nice things. They got good food. Nowadays everybody is happy just to earn enough money to survive” (Mariam 3/2011). As Mariam's statement already shows, in many cases, the savings concern important needs. Many other women told us that they had reduced consumption expenses for food (buying less meat and fruit, and opting for lower quality thus cheaper vegetables or staple foods), for medical expenses (already mostly avoided before the interventions) or for the children's schooling.

12 The many hours of hard work in sorting the garbage or raising the animals was not considered “work” since it was neither paid nor outside the “private sphere” of the household as a telling interview excerpt shows “Do your three girls work?” “No, neither of them does” “Do X, Y and Z help you?” “Yes, they help me in the Zeriba. Without them, I would be lost.”

In Ezbet Al-Nakhl in 2006 several families had decided to take their children from a good private community school to a public one or to take them out of school completely. However, it should be noted that the high drop-out rates among *zabbaleen* children have extrinsic as well as intrinsic causes (see also Fattah 2013). In some cases children were indeed obligated by their parents to take up an employment. This is often the case when the father loses part or all of his income due to personal (illness) or structural reasons. In other cases, however, it was the children's own decision to stop their schooling. In our interviews in 2006 and 2011 *zabbaleen's* children reported getting insulted and beaten up in school – especially when their parents were not able to pay for the “extra courses” imposed by many teachers to enhance their limited income. Some of the poorer children endure this mistreatment for the sake of education (E., 3/2011) while others decide to opt out at some point in time (e.g. after having had a hand broken by a teacher, Brother of A., 3/2006). The better-off *zabbaleen* families on the contrary can often afford the obligatory extra lessons at the state schools and/or private school fees, thereby increasing their children's chances to finish not only primary but even secondary or tertiary education.

No matter what stance one takes on the usefulness of education and diplomas in current-day Egypt, it is obvious that the array of consumption modifying strategies highlighted above did impact negatively on the current and future availability of human capital and thus the future potential to secure a (better) living.

Thus, to sum up, while on the whole the *zabbaleen* have managed to creatively secure income opportunities within their sector of expertise, the adverse effects of the first two critical interventions are evident as well. The only actors within the *zabbaleen* community who clearly increased their financial capital as a consequence of the waste sector reform were those Wahis and Mu'allim who were shrewd enough to conclude sub-contracts with the multinational waste companies. It seems that a majority of them embezzled the remuneration for the contract instead of sharing it with those *zabbaleen* who were compelled to collect the garbage from the households anyway to make a living.

In addition to the two already mentioned rather sudden and specific “shock events”, the *zabbaleen* and their livelihoods have been influenced by a number of more general critical developments. These include the global economic crisis 2008/2009, the Egyptian “revolution” and subsequent changes in government since 2011 and finally the soaring inflation following the floatation of the Egyptian Pound in November 2016¹³. This structural context – which in terms of the livelihood framework would be categorized as

13 <https://www.bloomberg.com/news/articles/2017-12-10/egypt-annual-inflation-rate-slows-as-currency-effects-fade>

“transforming structures and processes” – will be dealt with in more detail in the following chapter.

Changing structures and processes

As critics have pointed out (see e.g. Dörfler et al 2003: 14), the category of “processes and structures” within the livelihoods framework is rather diffuse and largely focussed on the local scale. In the case of the *zabbaleen* who are tightly entangled in social, political and economic relations ranging from the local to the global, it is crucial to modify the framework in this regard. As suggested by Dörfler et al (2003) Bourdieu’s concept of “social fields” proved to be a valuable approach for this purpose.

Social fields are characterized by field-specific rules. Actors situated within these fields act according to these – incorporated – rules and use their assets to compete with each other and enhance their individual positions. In the case of the *zabbaleen*, the relevant actors are situated in the fields of “civil society” (development and welfare organisations), economy and politics. All these “fields of influence” range from the local neighbourhood level to the global scale. “Development” interventions in the two larger *zabbaleen* settlements, Muqattam and Ezbet Al-Nakhl, for example have been financed and carried out by – sometimes cooperating and sometimes competing – local NGOs, actors related to national entities such as the Coptic church and international or global organisations, e.g. the USAid, or the IWF/Worldbank (cf. Asaad and Garas 1994, Furniss 2012).

The political field – tightly interwoven with the economic field as it is¹⁴ – is the most complex one to disentangle (cf. Debout 2012 on local politics in Cairo). The field includes actors ranging from the CCBA/GCBA on the local scale to the different national ministries again up to international entities such as the IMF which has been influencing Egyptian economic policies since the 1960s and has re-gained crucial influence with a new loan agreement signed in November 2016¹⁵. Since 2010, the political field has been repeatedly shaken and transformed both locally and nationally (Debout 2012, Du Roy 2013), resulting in increased political awareness among the *zabbaleen* but still less notable gains in terms of political representativeness or advocacy.

It is on the economic field that the fiercest competitions take place. The waste sector in Cairo has indeed proved to be a field in which the “global” and

14 Cf. Roll, S., 2011, « Marionetten oder-spieler? Großunternehmer und Manger », *Inamo*, vol.17, p. 26-29.

15 <https://www.imf.org/en/News/Articles/2017/09/25/na092617-egypt-the-economy-is-gathering-strength>

<https://www.madamasr.com/en/2017/06/29/feature/economy/slash-and-burn-reducing-fuel-subsidy-bill-at-whose-expense/>

the “local” interact vehemently. However, other than what one would have expected at the outset, far from being a simple case of neo-colonial exploitation (Ibrahim 2004) or straightforward neoliberalism (Kuppinger 2013), the set-up in this field is more complicated. With some exception to be made for AMA Arab¹⁶, the multinational companies were ill-prepared to establish their businesses in the specific socio-economic context of the Egyptian capital. The calls for tender as well as the companies’ strategies had seriously underestimated a number of cultural issues as well as vested interests and power struggles in this field, thereby providing spaces for manoeuvre both for the *zabbaleen* and those Middlemen who took advantage of the situation to better their personal income and standing at the expense of the Multinationals and the *zabbaleen* whom they claimed to employ.

On a national scale, an economy characterized by high percentages of unemployment, poverty and informal employment has also contributed to shortcutting the *zabbaleen*’s benefits as an increasing number of competitors take part in the waste and recyclable markets. These actors include the building caretakers (*bawwab*) and (some) waste pickers who took advantage of the new opportunities provided through the street bin collection system introduced in 2003. In addition, our respondents were persuaded that even in the more popular quarters of the city they are facing increased competition through “*rouba bekkia*”, or new occupations such as people buying and selling stale bread or small vegetable allowing for payments “in recyclables” instead of cash. As these examples already show, informality is not restricted to the *zabbaleen*. Seeking additional and often informal income opportunities as well as arrangements with authorities that make these strategies workable on an everyday basis is a key feature of many Egyptians’ life, ranging from the very poor to the more affluent parts of the population. As shown by Desvaux (Desvaux 2009), when one tries to judge what “informality” means in terms of vulnerability, it is important to consider the assets and the social position of an individual actor (*Zabbal*) that might enable him to work either in an informal but relatively secured context (collection station downtown) or in an extremely vulnerable and stressful informal context (e.g. in the case of a *sarih* in the same area).

The economic field is equally important because this is where prices for consumer goods as well as for the sale of recyclable goods are set and negotiated. Prices for recyclables have been extremely volatile in the last years, depending on seasonality and arrangement within the traders syndicates (interviews 2006, 2017) but also on national taxation as well as offer and demand on national and international markets (interviews 2011, 2017). The actors

16 AMA Arab is an Italian waste company. In 2002 it was attributed the waste collection and management in North Cairo. In 2006 the company additionally took over the management and collection in East Cairo from the outgoing company Urbaser (Florin 2012: 22).

involved in the negotiation of the prices range from the local to the international scale. This means that the *zabbaleen* – whether they import equipment from China or Germany for the value-adding steps in the recycling industry or if they sell the recycled plastic pellets to Chinese companies in China or in Egypt or if they have to buy imported staple foods – are clearly integrated into a global economy. Thus it should not come as a surprise that the global economic crises in 2008/2009 for example depressed the prices for recyclables traded on the international market, in particular for PET, to a significant extent (Furniss 2015: 4-5). However, the three owners of plastic recycling workshops we interviewed in 2011 conceded that the loss of 50% in trade volume experienced since 2009 had been partly compensated by a recent price hike of 30-40%. Losses in financial income therefore seem to have been limited in time and scope. In addition, those traders who had enough surplus financial capital and were willing to put it at stake were even able to benefit from this volatility by buying the material at a low price and selling it at a higher price later on (Furniss 2015: 4-5).

The Egyptian revolution in 2011 has also affected the *zabbaleen*, albeit to a lesser extent and in more indirect ways than one might presume. In the weeks immediately after the toppling of Mubarak, the feeling among the *zabbaleen* in Muqattam was one of fear on the one hand and relief on the other hand. Fear, because the power vacuum and instigated turmoil created an atmosphere of insecurity which prevented many women and girls of going to school or walking around in the dark. This situation unsettled in particular the Christian *zabbaleen*¹⁷. Relief, because on the other hand the power vacuum meant that the random control of traffic police and others abated and less bribes or “ransom” for confiscated lorries had to be paid.

The most visible effect of the revolution and the subsequent power vacuum has been the tremendous physical transformation of urban spaces in Cairo. Individual actors have seized the opportunity to either construct on remaining open spaces (see Furniss 2016 for Muqattam) or to add extra floors to their buildings (field visit 2017). By renting some of the newly built spaces, the

17 In Muqattam this feeling of fear and being prosecuted because of their Christian religion was extremely prevalent among the *zabbaleen* after violent clashed with Muslim residents from Sayyida-Aysha which resulted in nine deaths. Several of our interlocutors had been eye-witnesses to the incident and lost relatives or acquaintances. All of them claimed that the deaths had been caused not by the Muslim residents but rather by army snipers positioned on the mountain range. Still, the feeling of alienation and conflict between the Muslim and Christian population in Egypt seems to have been sharpened by the events. While in 2011 all *zabbaleen* respondents claimed that these feelings did not include their respective Christian or Muslim neighbours in the settlement, the question if these inter-group relations have really not been changing since 2011 does represent an open and interesting question.

owners were able to acquire revenue that could easily replace the revenue from the selling of the pigs. Interestingly enough, until 2017 some *zabbaleen* still raise animals on the empty upper floors or the roof. This is however less profitable, since they now have to pay to get the excrements evacuated from the higher floors of a building. As a consequence many livelihoods currently rely on a reworked combination of revenue strategies, including rent, animal rearing, selling and recycling

The most recent development impacting on the *zabbaleen*'s livelihoods has been the unpegging of the Egyptian pound in 2016. This economic measure has resulted in a skyrocketing inflation of 20-32% (year-to-year) throughout the year 2017 which impacts negatively on many residents' everyday lives¹⁸. *Zabbaleen* recycling workers interviewed in February 2017 mentioned that due to the consequently slumping import of goods and raw materials, demand and thus prices for the recycled cardboard and plastic provided by the *zabbaleen* workshops and merchants are on the rise, thereby contributing to enhanced livelihoods of at least some members of the community¹⁹.

DISCUSSION – FUTURE AVENUES FOR RESEARCH OR ENOUGH OF THE SAME?

In this paper, we have asked how political decisions and economic developments have impacted on the *zabbaleen*'s livelihood in specific and the micro waste governing system livelihood in general since the creative adaption strategies devised by the *zabbaleen* have enabled a large number of them to continue their work within the waste sector. While many households have experienced a depletion of their assets and a decline in financial revenues, the effects of decisions to reform the waste sector and slaughtering of the pigs have impacted most negatively on those *zabbaleen* lacking financial, physical or substantial social capital. We argue that in order to disentangle the urban and social geography of informal livelihoods in a globalized megacity, research is needed which relates both to the individual actor and household without neglecting at the same time the ever changing structural constraints and opportunities in which these actors are embedded. While the sustainable livelihood framework provides a promising entry point to this type of research, Bourdieu's reflections on social fields and his theory of practice which have gained

18 <https://tradingeconomics.com/egypt/inflation-cpi>

19 This estimation is supported by Professor Salah el-Haggag, chair of the Mechanical Engineering Department at The American University in Cairo and Vice President of A.P.E.

<https://www.egypttoday.com/Article/1/4027/From-trash-to-treasure-Egypt%E2%80%99s-new-recycling-initiative-triggers-dispute>

increased visibility in development studies and geographical research (see overview e.g. in Deffner and Haferburg 2012) provide indeed an even more convincing theoretical avenue for current and future research on this topic.

This special issue raises the question whether or not the *zabbaleen* represent an overresearched topic and community which should be neglected in favour of different subject matters or whether future research would be necessary and meaningful. Based on our fieldwork and analysis, we would like to discuss this question both from the point of view of our interlocutors (that is the *zabbaleen* themselves) and from a researcher's perspective.

Some degree of "research fatigue" and a feeling of being overly explored might be expected in any social group that has been the object of research for a long period of time. However, among the *zabbaleen* this seems not to be a general phenomenon – neither in Muqattam, where most researchers have been asking their questions and making their observations, nor in Ezbet Al-Nakhl, where lesser but still relevant numbers of number of foreign researchers and aid workers have been conducting interviews and surveys.

On the contrary, in 2011, two months after the revolution, the film and research team was met with an astonishingly high degree of openness and willingness to participate in a research/film project –even after a large number of journalists had been talking to many of the same contact persons. Clearly a researcher's willingness to linger around, drink tea and have an open ear for the respondents concerns that might go beyond the focus of the research project were appreciated and helped to establish a relationship of trust.

In 2017 then, this trust was much harder to gain. The recycling workers interviewed by the Egyptian author increasingly raised the question why they should answer once more to nosy questions when all those foreigners had already inquired in length and depth into their affairs before. We would argue however, that this reluctance is related to a general context of distrust and anxiety. Contrary to the situation in 2011, security forces are now back in the streets. The death of an Italian Ph.D. student in Cairo in 2016, repressive measures against civil society actors and lately a new NGO law that will prohibit any NGO to conduct fieldwork or publish studies without prior approval by the authorities seem to be much more important hurdles for empirical social research than the interlocutors' possible feeling of being over researched.

As concerns the scientific point of view we also hold the opinion that despite the extensive body of literature on the *zabbaleen*, one should not consider them an over researched topic. There are two main reasons for this argument.

Firstly, as shown in the paper at hand and many other recent empirical studies, research related to Cairo's *zabbaleen* clearly continues to offer important insights. Relating processes of globalisation and modernisation to everyday problems encountered in megacities across the globe such as waste, environmental hazards, livelihoods and the informal economy as well as to topics such as community building, inter-religious relationships and the role of religiousness for identity and everyday practices, research on the *zabbaleen* communities is

clearly connected to numerous issues that merit in-depth research. This strand of research proves particularly worthwhile when it helps to unsettle taken for granted views on neoliberalism, north-south dichotomies or assumptions about global-local struggles (see Didero 2012, Furniss 2009, 2014, 2016).

Secondly, our research and the reflections on this paper raised a number of worthwhile questions for future research²⁰.

In this paper we have given some answers to the question of “which kind of capitals and assets are most relevant for resilience against external shocks”. However, due to the three different sets of interviewees across the years, we cannot pretend to give an exhaustive answer to the question which social positionality makes a household more or less vulnerable in the long term. In order to answer this question convincingly in a context where external parameters are constantly changing, what would be needed is a long-term (ethnographic) in-depth study following the trajectories of a number of families in their social fields.

A long-term, longitudinal study would be particularly interesting in view of the most recent developments impacting on the waste sector in Greater Cairo and the *zabbaleen*'s livelihoods. These include the inflation which had only started its 12-month peak at the time of our last visit to the field in 2017. More particular to the waste sector, the last years have witnessed the emergence of new actors. As of 2013 already, only three areas in Cairo were serviced by the international companies AMA Arab and FCC (Annual Report 2013: 41) partly according to the initial contracts from 2002, partly according to newer arrangements. In the governorate of Giza national companies have taken over responsibility entirely. The neighbouring governorate of Qalyubiyya (on the border of which Ezbet Al-Nakhl is located) has equally been drawing up plans for a different type of “integrated solid waste management” since 2015 (Shehayeb et al. 2017). As Debout has shown for a newly negotiated licence with AMA Arab in 2009, all these new negotiations and plans might offer some options for an enhanced cooperation between the different players in the field of the Egyptian waste economy. These would be worthwhile to explore in more detail, looking in particular at the interplay and arrangements between formal and semi-formal private and public actors.

Both the recent inflation and the new plans for solid waste management including visions of sorting-at-source procedures play a role in the recent appearance of yet another player in the field of solid waste management. The most recent measure has been the set-up of Kiosks buying recyclables in a rich

20 We would like to thank our two anonymous reviewers for their valuable comments and questions – some of which we were not able to answer for reasons of timing, while others will indeed need further research to be undertaken in order to provide a sound and reliable answer.

neighbourhood of Heliopolis²¹. Critical voices doubt that this new sort-at-source project will be more successful than previous attempts. Yet, the soaring inflation rates that Egyptians have endured in 2017 might avail a crucial incentive inciting citizens to make use of this additional source of income – if not the middle and upper class residents, then at least the Bawwabs and domestic workers. Who will use, who profits and who suffers from this new competition in the recycling industry? These are still open questions which show that further well-founded in-depth empirical research around the *zabbaleen* and the manifold topics related to this social and occupational group still proves to be worthwhile and necessary.

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21 <http://www.egyptindependent.com/cash-trash-state-kiosks-buy-waste-recycling-0/>

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