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The Emergence of Trash Picker Cooperatives in Brasília and the Challenges to Good Governance in Waste Management

Introduction

The Federal District, home to Brasília, the capital of Brazil, is taking measures to implement an integrated solid waste management program that aims to promote, among other things, recycling at the source (households, business, government agencies) and support for the work of trash pickers through the creation of cooperatives. This paper focuses on advances and challenges Brasília faces in its efforts to establish a socially inclusive, integrated model of solid waste management. Through historical examination, comparison of waste management practices with another Brazilian city, and review of recent research on the subject, I will examine the potential of cooperatives to serve as mechanisms for social inclusion of trash pickers.

The number of people living in urban environments throughout the world has increased dramatically in the past century. According to the United Nation Population Fund, about half of the world's population now lives in cities.¹ The trend is particularly remarkable in less developed countries, where rural poverty, exacerbated by the mechanization of agriculture, has led to widespread unemployment – a major push factor toward cities. It is estimated that in less than thirty years, sixty percent of humanity will be made up of urbanites, and the majority of

¹ <http://www.unfpa.org/pds/urbanization.htm>

them will live in less developed countries.¹ While that figure might not be cause for concern in developed nations, it raises many questions about the capacity of countries with weak economies and histories of social inequality to support such high urban population densities materially and institutionally. If the current global economic downturn is any indication of what lies ahead, one can expect to see urban poverty and its attendant maladies continue to be a reality for quite a while.

A handful of middle income countries where the proportion of the urban population surpasses that of developed nations already face a tremendous challenge to provide for the basic needs of their poor urban citizens. South America, with its 81% urban population (the most urbanized region of the world) is a case in point. Uruguay leads the group with 94% of its population living in cities, followed by Argentina (91%), Venezuela (88%), Chile (87%), and Brazil (83%).² Although these figures may not be too impressive for a nation as small as Uruguay, with its 3.3 million inhabitants, they become quite noticeable in a country the size of Brazil, which by itself holds roughly half of the population of South America with 195 million people.

Especially worthy of attention in the case of Brazil is that, despite its relative economic prosperity in terms of national GDP and other economic indicators, over 58% of its work force earn their living from the so-called ‘informal sector’ (Gaiger, 238). Of those, 60% earn between one and three minimum salaries,³ which puts in evidence the limitations of the country’s current model of economic development in creating jobs, while demonstrating the ingenuity of the

¹ ibid.

² Compare with the United States, with a 79% urban population and Canada, with 81%.

³ These figures are from 2004. In today’s currency, one to three minimum salaries correspond to US\$173-520.

masses in their capacity for self-provisioning.¹ Brazil is not unique in this regard, however. There seems to be a distinct trend in rapidly urbanizing countries of South America towards the formation of production guilds (cooperatives, associations), many of which emerge as alternatives to absolute destitution. Street scavenging is one area around which many people have organized. Despite having existed since time immemorial, the number of people resorting to this activity for survival has increased dramatically as a result of the current paradigm (and paradox) of economic development. In Buenos Aires, for instance, the number of *cartoneros* (cardboard pickers) that roam the streets collecting recyclables ranges from twenty-five to forty thousand (Medina, p. 174), and if one includes children, wives, and other dependants, somewhere around one hundred thousand people depend on waste collecting for their survival.

While the primary causes of the expansion of informal work are evident, there is still much to be learned about how, if, and in which form such activities will persist, particularly amongst the more economically fragile occupations. Street scavenging, for example, which is generally shunned by government and the upper classes, may be forced out of existence. In Brazil indirect pressure to rid the streets of scavengers has already taken soft legal form. Presidential decree 5940, for example, which was enacted in 2006, mandates that all federal agencies separate their waste and donate it to legally established cooperatives of trash pickers. While the incentives being provided and legislation being implemented to support a transition from informality to the semi-formality² of cooperatives is praiseworthy, there is some evidence

¹ The informal sector is not comprised only of people from the lowest social strata, but also by lower middle class groups which were formerly formally employed but who, due to downsizing and other factors, lost their jobs and were forced to seek alternatives “off the grid.”

² I use the term semi-formality because, while cooperatives are legally established enterprises and its members are (or should be, by law) registered, tax-paying citizens, they do not constitute a source of ‘formal’ employment, in the sense that they are not on any business’ payroll, or enjoy any kind of benefit or job security.

that the model currently being employed in some Brazilian cities does not contribute to changing historical patterns of class inequality. Whether or not this is due to inadequate implementation of the principles that govern cooperative enterprises (as a result of historical/cultural/institutional barriers) or simply a case of socio-economic Utopia is a matter that will be discussed in more detail below. In addition, contradictions exist that nullify some of the positive effects of procuradores policies, such as the reluctance of the government of the Federal District in granting land-use rights to newly formed cooperatives.¹ Some of them, despite being legally constituted, operate on illegally occupied land or in residential areas. And while federal funding has been earmarked for the construction of infrastructure, disbursement awaits designation of sites.

Recent developments in recycling solid waste, propelled by popular interest and NGO campaigning, were part of the impetus behind Presidential decree 5940. Recycling cooperatives offer street scavengers an option to work within the legal and social system. While under certain conditions working in a cooperative may be more lucrative,² some scavengers are reluctant to join for a number of reasons. From the standpoint of some street scavengers, working the streets gives them more freedom and possibly better earnings than being the member of a co-op. Furthermore, it does not seem physically or economically feasible to place all of the current numbers into cooperative centers. There are too many people and not enough resources or facilities to accommodate everyone. Careful judgment needs to be exercised as to what values and objectives are at the heart of the current discourse, what the assumptions are regarding the

¹ The ideal scenario for the government would entail what officials refer to as a partnership with the cooperatives, by which the triage/sorting facilities would be juridically under government control. The leadership at CENTCOOP, however, fears that this type of arrangement would curtail their powers of self-determination and establish patterns of dependency and clientelism.

² In Porto Alegre, street scavenging is generally more profitable than working at a co-op, but some of those who work the streets do not own the carriages they work with, that is, they are “salaried” scavengers, and earn less than they would if they were self-employed.

effectiveness of the proposed course of action, and whether or not, given the extant examples, the model satisfies the propounded objectives. If planners are aiming for “cleaner” streets, that is, streets without horse drawn carriages and poor people in rags rummaging through waste bins, then the proposal to place everyone inside built structures is consistent with that objective.

Whether it is economically feasible and/or socially beneficial is a different story.

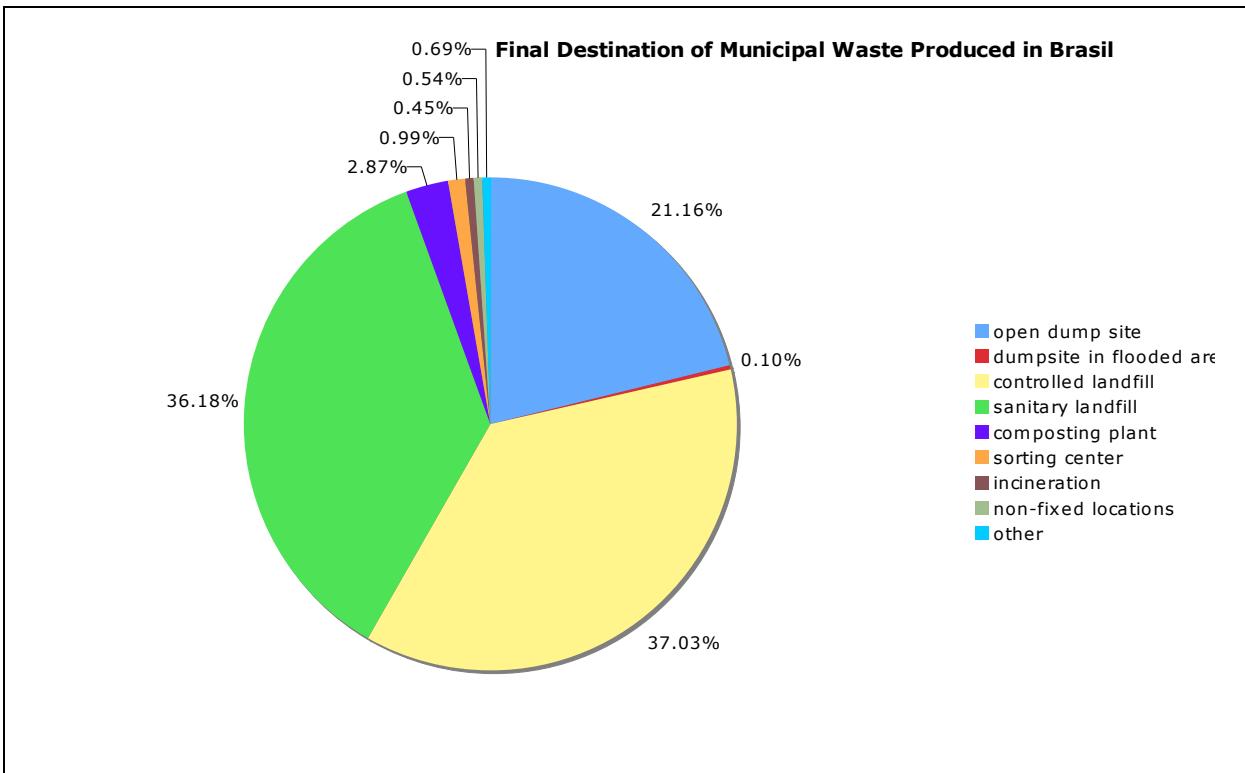
Waste in Brazil

In Brazil, almost 230 thousand tons of waste are produced each day.¹ According to statistics compiled in 2000 by the Brazilian Institute of Geography and Statistics (IBGE), only 0.99% of the total amount of waste collected by municipal cleaning agencies goes to sorting units. The great majority goes to open dump sites and landfills. Sabetai Calderoni observed in a detailed study of the production and destination of trash in large Brazilian cities that the generation of solid waste in the country follows a trend by which 30.9% of household waste is made up of recyclable materials, such as aluminum cans, glass, paper, plastic and steel cans, and the remaining 69.1% is represented by organic materials, as well as other non-recyclables.² Calderoni’s findings reflect the reality that a vast amount of recyclable solid waste is being unnecessarily discarded.

The Brazilian Institute of Geography and Statistics (IBGE) has also compiled information about the types of disposal ‘facilities’ currently being employed in Brazil and the proportion of the waste that goes to each structure.

¹ IBGE (Brazilian Institute of Geography and Statistics) 2000 Pesquisa Nacional de Saneamento Basico (National Survey of Basic Sanitation). Accessed: November 2008, at http://www.ibge.gov.br/home/estatistica/populacao/condicaodevida/pnsb/lixo_coletado/lixo_colgado110.shtml

² Sabetai Calderoni, *Os bilhões perdidos no lixo*, São Paulo: Humanitas, 2003.



Final Destination of Municipal Waste Produced in Brazil¹

As the chart above shows, a great majority of the waste collected by official municipal cleaning agencies goes to landfills. According to Medina, Brazilian catadores “supply 90 percent of the materials recycled by industry and reduce by 20 percent the amount of waste that has to be collected, transported, and disposed of.” (70).

¹ IBGE: http://www.ibge.gov.br/home/estatistica/populacao/condicaodevida/pnsb/lixo_coletado/ Accessed December 2008. Legend: Controlled landfills are managed such that the waste lies in direct contact with the soil. It is ‘controlled’ in the sense that it is spread, compacted and covered with soil at the end of each day. Some such landfills have drainage systems installed to collect leachate and piping to capture methane gas. Sanitary landfills (or *aterro sanitario*) in Brazil refer to the lined version of controlled landfills. These provide better protection against leakage. Sorting centers are places where recyclables are separated from non-recyclables and packaged for sale. Open dumpsites are the most primitive form of disposal in which no management takes place.

Nevertheless, recycling rates in Brazil are still low (with the exception of aluminum cans) in comparison to Japan and some countries in Europe.¹ Almost 32% of paper, 12% of plastic, 35% of glass, 18% of steel cans, and more than 80% of aluminum cans consumed in Brazil are recycled. (Calderoni, 2003, via Silva, p. 64) While efforts have been made to institute a national policy setting standards for waste management, that goal has not been achieved yet. At the current stage, waste management is fully the responsibility of municipalities; therefore, practices are diverse and standards are predominantly low. Some cities have been at the forefront of the struggle to reduce the waste of urban waste and have implemented recycling programs of varying success. Porto Alegre is one of the pioneers in this move, as are Curitiba, Recife, Belo Horizonte, and São Paulo, each of which has its own peculiarities. Curitiba, for instance, invested heavily on a public campaign to raise awareness, under the slogan “Trash that is not trash.” Recife’s program involves “selective collection” and source separation, in addition to the establishment of volunteer delivery centers distributed around the city. In Belo Horizonte, recycling is carried out through a partnership involving paper waste pickers, trash picker associations, banks, charity organizations and the Secretariat for Urban Cleaning (Aires Neto, 1996 apud Costa, 1998, Andersson, 63). At present, only 6% of the 5507 Brazilian municipalities (352 cities) have recycling programs.

Some of the most common obstacles to improvements in the area of solid waste management as outlined by Zepter (1992) (in Andersson) include limitations of finance, technology, popular cooperation, implementation and maintenance of public policies. On the administrative level, the lack of continuity between administrations, the limited capacity to implement public policies, which results in a tributary system that centralizes resources in the

¹ We must keep in perspective, however, that the consumption levels of these countries is manifold higher than in Brazil.

federal government, and the lack of communication within the administration, create obstacles to finding solutions to the issue of urban waste. Processes that depend on the import of obsolete technologies or implementation of management models employed successfully in other cities, where, the physical, cultural, and social and economic reality is completely different can also hinder solid waste management programs. It is important to note that some of these obstacles have been abated partially by the support of international organizations and NGOs (Andersson, 60), which work in capacity building, raising public awareness, and denouncing illegal practices, as well as providing financial and logistical help.

Problems with Informal Picking

At open dump sites, there are safety problems related to exposure to hazardous materials, decomposing matter, disease vectors, air pollution/noxious gases, and risks associated with the trucks that transport the waste and the machines that provide compaction. Cases have been reported of deaths and serious injuries occurring when people on the ground and operating the machinery do not take proper care. All across the board, the presence of children at such places is observed. (Laquian et al., p. 205). On my own visit to Brasília's dump, I witnessed the presence of children running about on the embankments of a leachate pool. In that case, the children had jumped over a rather dilapidated fence that separates a squatter settlement inside Brasília's national park and the dump site property and were playing near the highly toxic body of liquid. The person in charge chased them off with warnings about the life threatening dangers of coming in contact with that "water." As far as I could tell from the brief experience, they were indeed just playing. The dump site is generally well monitored, particularly in the core areas, where the offices and the entrance are located, and I assume that no child labor is allowed

under their supervision. Even adult labor is somewhat tightly controlled to prevent overcrowding and excessive competition among trash pickers. Every person working at the site must be registered with the local NGO (Eco-Atitude) in charge of social “managing” the crowd.

The Current State of Recycling in Brazil

Improvements in technologies to reprocess recyclable materials, combined with dramatic increases in waste outputs which facilitate the development of economies of scale have contributed to transforming recycling into an economical and environmentally appealing alternative to extracting resources in their natural state. “Waste” has emerged as a valuable commodity, much in contrast with its earlier status as an environmental externality and hazardous inconvenience. In many developing countries, recycling practices are also gaining momentum as a result of greater public awareness, the development of pertinent policies, and the presence of the abovementioned market incentives (Medina). In addition to the evident environmental benefits of recycling, particularly in terms of reduced extraction of raw materials and extension of the life span of landfills, various studies have pointed to its significant economic benefits. These can be accounted mainly in terms of energy savings (in transportation, extraction and processing).

Cities with “Selective Collection”

The pre-industrialization phase of recycling generally follows a straightforward process. In the selective collection type of system, curbside pick up of mixed waste is complemented by collection of source-separated recyclables on designated days of the week. In the case of Porto Alegre, selective collection happens at least once a week in every neighborhood, while regular

pick up takes place daily (Monday through Friday). In theory, the selected waste is supposed to consist only of materials of commercial value. The list of post-consumption products that can be recycled varies from city to city, depending on the types of industries in the region that can reprocess the materials. More valuable materials, such as aluminum and paper, are generally separated, irrespective of the distance to the nearest reprocessing unit.

Mixed and separated waste is disposed of by households and business at designated places outside their living or working facilities, where it is picked up directly by the waste management agency personnel or by a contracted company. Each type of waste (separated or mixed) follows a different trajectory once it is collected. Mixed waste is transported directly to the municipal dump/landfill, where it is properly accommodated and compacted to minimize air pollution effects and extend the life of the facility. Cities that incorporate an organic composting program into the selective collection, as is the case of Porto Alegre, will bring the collected mixed waste to a sorting unit where non-organics are separated from the organic refuse and subsequently treated to produce manure. Materials with sales value are pressed and sold at below market prices, given their inferior quality resulting from contamination.

Theoretically all the materials from the selective collection go to sorting units, where they are separated into categories and pressed for transport. In practice, regular organic and non-recyclable inorganic materials are mixed in, which requires post-sorting transport to the dump site. Some cities have so-called PEVs, an acronym for Voluntary Delivery Posts, where private individuals and business may drop off their recyclables if they do not want to wait for the next collection date. Some chain supermarkets have also implemented their own PEVs. One large chain in Brasília, for instance, has implemented a partnership with cooperatives, by which one to three cooperative workers are assigned to watch over the recycling station at the store in

exchange for the material that is voluntarily delivered by store customers. In cases where the proceeds from commercialization of the material does not exceed a minimum set amount (roughly one minimum salary, in the abovementioned institution) the store pays the difference.

Parallel to the official collection services, “informal collection” is carried out by catadores in most cities with or without selective collection. Informal collection can take different forms. In Brasília, cooperatives with access to a truck will make rounds to specific spots (or *pontos*) where an informal pick up contract has been established. Individual catadores, some on foot equipped with hand carriages, others in horse-drawn carriages, will also make rounds to their own pontos, which may be a location to which he/she has laid claim to by having arrived there first or a place that is “rented” to him/her by a self-ordained “owner” of that ponto. The collected material is then sold to scrap dealers, middlemen, or even a cooperative. It is not uncommon that some of these catadores will have a small warehouse where they stock up before the arrival of the middleman. One peculiarity of the informal collection performed by small scale catadores (those without a truck) is that it is on-site selective, that is, the catador will open trash bags, and rummage through dumpsters or waste bins just for the material of interest. While this practice helps reduce the volume and weight of the material for official collection (while reducing the amount of recyclables that in many cities would end in landfills), it certainly is cause for contention. Often there are complaints about the mess that is left behind by the catadores, whom are said to open trash bags and not close them, leaving their contents exposed and subject to being strewn by stray dogs or by the wind. The presence of horse carriages and hand carriages operated by people in rags is pointed to as a nuisance and public safety issue as they often obstruct walkways or slow down car traffic. Also, in cities where the officially

collected waste is delivered to cooperatives, which make their money on production, the street catadores are often seen as an unfair competitor.

Sorting in Brasília is carried out by scrap dealers (*sucateiros*), as most of the cooperatives still do not have access to the basic technology to press or shred some of the materials. In Porto Alegre, all of the cooperatives have their own compressors, and the waste management agency has plans to purchase a machine to pre-process plastic.

The list of products that can be inexpensively recovered is growing, and previously discarded items such as organic waste, construction debris, sludge, and Tetra Pak cartons are being incorporated into the recycling stream. Recovery rates for aluminum in Brazil, for example, are among the highest, exceeding even those of developed countries.¹ But this environmentally salutary fact, if contemplated through a broader socio-political and economic prism, reveals a not-so-commandable reality: to a large extent these rates are as high as they are because aluminum cans, being amongst the most valuable recyclables, are intensely sought after by street scavengers as a source of income. The activity would not be a source of concern if it did not carry inherent, fundamental inequalities in the distribution of wealth and relations of power that impinge upon the workers' social status, identity, health, and safety conditions.

Informal Trash Picking and “The Movement” in Brazil

According to Medina, there are four basic types of ‘scavenging’: (1) scavenging for self-consumption, (2) for artisan activities, (3) industrial scavenging, and (4) scavenging for agricultural activities. While the first one is not market-oriented, the other three have direct

¹ According to ABAL (Brazilian Aluminum Association), in 2007 Brazil ranked first in the world for the seventh consecutive year in the recycling of aluminum cans. See http://www.abal.org.br/english/noticias/lista_noticia.asp?id=101 for information about this in English.

economic motives to them. Street scavenging, or informal trash picking, is an overwhelming reality in industrializing countries, where agricultural mechanization creates higher unemployment and the strong movement of people toward cities increases population density and limits employment choices. Brazil is a particularly emblematic case in this regard, as it has one of the highest urbanized societies in Latin America, with 83% of the population living in urban settings. Cooperatives of trash pickers emerge as a strategy for survival and social inclusion in the context of high urbanization and the consequences associated with it, namely, an increase in the quantity of waste produced and the lack of sufficient jobs for an unqualified labor force.

Although the activity of picking through trash for recyclables has existed for a long time, only recently has it gained considerable visibility. This is due to the high numbers of urban poor relying on it for their survival and the significant economic role they play in the production chain of recyclables. They are present in the overwhelming majority of Brazilian cities (90% according to the Ministry of the Cities) and are responsible for 80% of all the recyclable materials that is purchased by industry (CEMPRE). Estimates by Forum Lixo e Cidadania, a national NGO that provides support to trash pickers, place the number of trash pickers who extract their livelihoods from waste at 400,000. (Silva, 71) In Brasília, it was estimated that 1500 families lived off trash picking in 1997. Currently, according to Forum Lixo e Cidadania, this number exceeds 5,000. (Silva, 71) These figures are rough estimates as there are different types of informal trash pickers (*catadores*), many of whom are not visible in the statistical surveys. Some have no fixed residence, others set up warehouses on conservation lands of the *cerrado* (Brazilian woodland-savannah), while others use trash picking as an additional source of income and are formally employed somewhere.

Benefits to Industry and the State

There are a number of studies that estimate the economic benefits of informal trash picking. Bangkok, Jakarta, Manila, Kanpur, and Karachi are examples of cities where street picking “saves each city at least US\$23 million per year by reducing imports of raw materials and the need for collection, transport, and disposal equipment, personnel, and facilities (Baldissimo and Lohani (1988) in Medina, 70). Industry also stands to gain, as informal street picking exonerates it from having to hire people to do the job of the catadores. In this arrangement there are no legal obligations for minimum wage, occupational safety, health insurance or retirement plan. Medina cites research findings demonstrating that “workers paid by the piece are more productive than workers receiving wages.” (Medina, 70) Medina’s arguments seem to be in favor of practices that refrain from providing safety nets and job security to scavengers, which may not be a judicious social, political strategy. His assessment of the economic importance of the activity of trash picking in modern society, however, helps to place this growing and increasingly more visible category of people in proper socio-economic and political context/perspective. If the sheer size of the group, which as a block creates political power, or the economic sector in which they operate were not significantly relevant, they might not have commanded the attention they now are beginning to receive.

In the past ten years, efforts have been made to devise and implement a national policy (Bill 230/91) to establish parameters and standards for the management of municipal solid waste. The federal government, aiming to integrate solid waste management practices into other spheres of urban development and planning and to generate income for the poor (thus mitigating the social impact of unemployment), is pushing for final approval of this bill. Bill 230/91 will

provide federal-level support to the activity of trash collecting through the creation of trash pickers' cooperatives in cities. This official initiative to consolidate the professional standing of the catadores constitutes an advance in governmental policy in terms of creating access to funding for infrastructure building and promoting some labor rights, such as the right to participate in the federal retirement program. Because integrated waste management is at the incipient stage of development in some cities, while still nonexistent in others, the ability of such a government model to meet professed goals of promoting socio-economic inclusion requires careful consideration.

This attitude is especially important in light of the historical tendency of the Brazilian government to pursue social policies that may favor capital or (geo)political interests over social ones, or even appropriate social development discourses to advance ulterior motives. From the perspective of the State, as in governmentality, some of the initiatives and interventions may have been justified in economic and geopolitically strategic terms. One example is the push during the military regime to "colonize" and develop the Amazon region for purposes of national security. However, the possibility of negative collateral social – or, as in the case of the Amazon, environmental as well – effects is not far fetched. In concrete terms, the likelihood that a national policy instituting the cooperative-based integrated model of waste management will contribute to the legalization of trash picking sweat shops is not negligible. Although the official discourse is quite well attuned to the principles of sustainability and development, much in vogue as a result of the Millennium Development Goals, there is reason to believe that many potential pitfalls lie along the path. In an urban context where the pseudo-modern technocrat coexists with manifestations of a colonial past, power relations tend to default back to that past. It is a matter of course for a street beggar or a car washer to address a man in a suit (or just any

man in a car) as a *patrão* or boss, or as *doutor* (doctor).¹ The development of laws might point in the right direction, but the entrenchment of culture is difficult to change.

The Particular Case of Brasília

Against this historical backdrop of solid waste management in Brazil and with current economic, social and environmental pressures at hand, Brasília is in the nascent stages of developing a municipal solid waste management system. It is useful at this point to look at the particular historical, geographical, and cultural biography of the Federal District (*Distrito Federal*) to better understand the factors underlying and informing the formation of recycling cooperative programs.

The Federal District sits atop the Brazilian central high plains on 5771 square kilometers, at the heart of the national territory. The vegetative cover is the *Cerrado* (neo-tropical savanna), which stretches across almost 500 million acres of central Brazil. The importance of this biome ranges from having high levels of plant endemism and containing an important network of rivers that feed three of the major water basins in South America (the Amazon, Paraguay, and São Francisco rivers) to covering land with an increasingly high value for agriculture.

Brasília is known around the world for its modernist architecture and for being the capital of Brazil. Also significant is the fact that it was built *ex nihilo* in the short span of 41 months, by an ‘army’ of thirty thousand construction workers. Additionally, in 1987, it was chosen by UNESCO as a World Heritage Site for its cultural and historical value. Initially planned to hold

¹ It is not customary for a person of higher social standing to address a lower-class person by any marker of superiority, unless they were friends or close acquaintances. It more common to hear titles like young man (*rapaz*), partner (*colega* or *parceiro*), brother (*meu irmão*), or good person (*gente boa*).

no more than 500,000 people, Brazil's *Distrito Federal* (Federal District)¹ now accommodates a population of more than two million. As the seat of the federal government and a major development hub, it has attracted waves of immigrants from other parts of the country since its establishment in 1960. Between its inauguration and 1990, the population grew from 150 thousand to 1.6 million inhabitants. By the turn of the twenty-first century, that number had reached over 2 million people. Such an intense movement of people – a great portion of whom were very poor – has exceeded the government's capacity to provide the necessary urban services to accommodate everyone.

The original zoning plan did not envision the occupation of the surrounding areas by urban development, as it was supposed to form a green belt around the city. The strict zoning and land-use policies initially planned has led to a virtual scarcity of space for urban expansion, driving land prices up and generating much illegal land occupation. As a result, the “planned city” and its environs have begun to face social and environmental problems similar to the ones in other large Brazilian cities. Ironically, the political and ideological bases for the creation of Brasília were aimed at eliminating social inequalities brought about by those very standards. Despite being celebrated as one of the cities with the highest human development index in the country, with the highest per capita income of all cities in Brazil, it shows great disparities in terms of income and living standards, which makes it a veritable example of Brazil's social inequalities. Much of the literature written on Brasília recognizes this pattern as one of the major facts aggravating the problems associated with the intense migration of dispossessed people.

¹ The administrative unit that is home to the capital city, Brasília

The Historical Context and Roots of Ideology

The plan to build a new capital in the center of the Brazilian territory dates back to the late eighteenth century, when Brazil was still a Portuguese colony. With independence gained in 1822, the idea was incorporated into the legislative agenda, and in 1889, with the proclamation of the Republic, it became part of the constitution. (Paviani (2003), 18) It wasn't until the late 1950s, however, that the plan was made into reality by president Juscelino Kubitschek. The crystallization of this long held goal coincided with a period of rapid economic development, with Brazil embarking on a large-scale project aimed at achieving economic and technological independence from developed nations by investing heavily in infrastructure and industrialization. In his estimation, the execution of such civil engineering projects as highways, hydropower plants, steel factories, and communications systems, would be the technological tools of progress as well as the political and economic instruments for the State to consolidate its sovereignty over the vast Brazilian territory. This geopolitical strategy saw in the construction of Brasília the perfect symbolism of renewal and national unity to support its Westward expansion. Once established, it would link the coast to the interior through the development of productive niches, such as large-scale agriculture, mining, and cattle raising, directly connected to the more economically developed regions of the coast by a network of roads. Another important consideration was the fact that the central plateau would constitute a safer haven for protecting the central government from any potential attacks coming from the Atlantic. (Holston, 9)

Kubitschek's announcement in 1956 of specific dates for the beginning and inauguration of the capital (1957, and 1960, respectively) signaled his resolve to carry out his plans. They were met, however, with great furor and opposition from within and outside established

bureaucratic circles. Few believed that such a grand project could be accomplished in only four years, or that, if initiated, construction would be concluded once a new president was inaugurated. Others argued that the project would drain the government's coffers, leading to inflation and economic depression, while some even voiced their distaste for establishing the seat of the government in "the middle of nowhere." This hurdle was partly overcome by a skillfully crafted campaign to legitimize the city's construction. By combining the idea of a foundation myth and the rhetoric of social and economic prosperity, Kubitschek and his supporters managed to tap into the religious naiveté of the population and the nationalistic aspirations of the elite. According to the president, the construction of Brasília was mandated by God, as it had been prophesied by Dom Bosco, an Italian visionary, who, seventy-five years earlier, envisioned the site of what he came to call the "Promised Land" (Holston, 16). The creation of what James Holston calls a "New World Mythology" was brought full circle at the inauguration of the city by the enactment of the liturgical tradition of conducting a Catholic mass to bestow the blessings of God onto a new city. The act referred back to the first mass conducted at the time of the discovery of the country in 1500, which gave it even greater symbolic meaning and religious legitimacy. The rhetorical skill Kubitschek displayed in promoting Brasília as the Promised Land is reflected in the date of Brasília's foundation and first mass, which coincided with the date of the discovery of Brazil (April 21, 1960 and April 21, 1500).

On the economic front, the president persuasively relayed the principles of "developmentalism," that were being expounded in Latin America in the 1950's by ECLA (The United Nations Commission for Latin America) and in Brazil by ISEB (Superior Institute of Brazilian studies) (Holston, 18). These principles, which Brasília would embody through modern, state-of-the-art architecture, gave emphasis to development through state-led large-scale

industrialization and pursuant rapid economic growth. The aim was to reduce dependency on imports of heavy industry products, placing the country in better trade standing vis-à-vis developed countries.

James Holston sums up the ideology well:

He, Juscelino, maintained that Brasília would produce both a new national space and a new national epoch; the first through the incorporation of the interior into the national economy, and the second by being the decisive mark on the time-line of Brazil's emergence as a modern nation. (Holston, 10)

By implementing these principles through an aggressive large-infrastructure development program, Kubitschek promised to accomplish in five years what, according to his estimation, in normal circumstances would have taken fifty. He called this ambitious program *Plano de Metas*, or target plan. In keeping with his goals for fast-paced development, Kubitschek's plans for the construction of the new capital also entailed building an entire city from the ground up within the four years of his mandate. In order to accomplish that, he enlisted a virtual army of engineers, city planners, and construction workers and hired two star architects, Lúcio Costa and Oscar Niemeyer, to work on the project.

Another critical component to understanding the president's grand vision is the idea he propounded of a social and political break with the past. Brasília, in addition to being the symbol of a new era of economic prosperity, also crystallized the ideology of cultural and political liberation from its colonial roots. It was to become the epitome of a society free of the injustices brought about by slavery and paternalism, and a nation that dealt on more equal terms with the economic colonialists of the political North, such as the United States and England.

The ideology of a new beginning was reflected in the choice of site for the construction of the new city that, in the eyes of the idealizers, was untouched by man. With the orchestration

of such a seamless ideological rhetoric, and supported by his own charisma and political clout, Kubitschek was able to carry out his plans to full completion.

Changing Society through Architecture

Brasília became the poster city of a Utopia, a means to reinvent Brazil, marking the beginning of a modernizing political and social transformation of the nation. It was expected to become the model for the other Brazilian cities to emulate (Holston, 4). In order for it to live up to such a tall order, it was planned to minute detail, from the representations of modernity in the style of its buildings, to the spatial organization of the cityscape and the way it's various ‘functional’ sectors are interconnected. The small-scale land use management is also evident in the planned distribution of gardens and other vegetated surfaces and the monopoly of control of the space surrounding the city, including construction of an artificial lake, two national parks, and strict land use and occupation policies. Kubitschek’s ideology, embraced by his two principal architects, gained form and color in the architecture and organization of space in the *Distrito Federal*. His ideas and the impact spatial configuration and design was expected to have on local residents is addressed below.

The president’s vision for the improvement of Brazilian society stood on premises of technological and economic development, and saw the creation of social wellbeing as dependent upon the achievement of material prosperity. His architects, Lúcio Costa and Oscar Niemeyer, however, were members of the Communist party, and the blueprint of the city as well as what it intended to achieve revealed (perhaps at the time concealed) elements of socialist ideology. This apparent political contradiction was overcome by the convergence of the three planners’ vision, which revolved around the goal of creating a new, better Brazilian society. Also common to the

two stances was the notion of top-down social reform, typical both of populist statism and of Soviet forms of social control. To Kubitschek and his architects, the abysmal gap between the opposite ends of society was an indicator of underdevelopment, which had to be remedied. That would be accomplished in Brasília by creating forms and spatial orderings that would be the antithesis of the traditional Brazilian city, with its inclination to divide by social status. In his analysis of the project, James Holston teased out two main premises that underlie the ideology embedded in the architectural project of the city:

The first premise is that the plan for a new city can create a social order in its image; that is, one based on the values that motivated its design. The second premise projects the first as a blueprint of national development. It proposes that if this new city could serve as an “exemplary capital,” projecting a model of progress for the rest of the nation to imitate, then it would be possible not only to generalize its innovations, but moreover to propel the country as a whole into the planned future that the exemplar embodies. (Holston, 4)

Crucial to the plan of the new capital was the sincere belief on the part of the planners that the design and organization of Brasília would have the power to change society. The ideals of equality and social improvement were in and of themselves quite tenable, but the assumption that the physical design of the city would have the power to catalyze social change was overly idealistic, as its failure to bear fruit demonstrates. I will show later that the Utopian nature of the social objectives embedded in the project was made all the more evident soon after the inauguration of the city, when the “army” of construction workers elected to stay in the city, rather than going back to their places of origin, much in defiance of the government’s directives. And a closer look at the socio-economic situation in Brazil at the time, as exemplified by the social status of the construction workers who answered the call to build the new city – and in view of their refusal to return to their hometowns – will reveal that Kubitschek’s plan paradoxically embodied the inequities it purported to combat.

The top-down approach to land use may have significant implications to questions of socio-environmental justice and may be reflected in the form of waste management practice reforms that are proposed for Brasília. To understand this association, it is useful to look at the historical bases of the development of such strict land use policies and the consequences it has had to society and the environment in light of the intense processes of migration and urbanization that the region has experienced since the city's inauguration.

Government Land Policies: Socio-Spatial Segregation, Urban Sprawl and Environmental Losses

In the short period since the creation of the capital, the region has experienced a high level of environmental degradation, a by-product of the haphazard process of urbanization of the Federal District. In the beginning of 2001, for example, the press announced that “in 44 years, the *Distrito Federal* lost 57.65% of its native vegetation. A study commissioned by UNESCO concluded that at least 600 species of the original flora have disappeared during this period.” (Paviani (2003), 33). As explicated by Paviani, rapid and chaotic occupation of the land has been detrimental to the District’s natural environment.

As previously mentioned, the environmental *problématique* is deeply embedded in the political economy of land use and allocation in the Federal District. A major contributor to the lack of legal housing in the Federal District is the governmental policy of exclusion and inconsistencies in allocating land. These procedures have effects on the way the territory is occupied, creating the problem of urban settlements spreading into areas of environmental protection, and fostering a rising criminality. Although itself a product of history, just like the society it controls, the government, as the main agent of social manipulation and ostensibly

responsible for serving the interests of the majority, has created policies that run counter to its professed goals. The idea of controlling the territory around Brasília to protect its environment and to maintain a high level of social and environmental wellbeing produces actions that end up having the opposite effect: fragmenting the land and inducing behaviors in society that are destructive of the environment. Paul Robbins describes a similar phenomenon taking place in Rajasthan, India:

State planners have attempted to physically partition those land uses seen as “social” from those seen as “natural” and thereby enforce a modernist purification of land covers. Despite these efforts – indeed, *because* of them – hybrid and “impure” land covers, which mix social and natural characteristics and combine exogenous and indigenous species, have proliferated across the landscape. Moreover, these quasiforests have been proven impossible to control or quarantine (Robbins, abstract).

The creators of the new capital intended to build a city without *favelas* (shanty town), free of class struggles. They wanted to use the virgin territory as a laboratory to test urban theories of social improvement. A concern with the environment in and around the future city was reflected in an environmental impact study conducted prior to the beginning of construction. (Paviani (2003), 18) Environmental concerns having to do with promoting air quality, protecting watersheds, and providing aesthetic value to the surrounding regions were incorporated in the city’s master plan and still remain in one form of or another in the current policy, despite the government’s inability to enforce the law.

Looking at the outward manifestation of structural problems, while failing to acknowledge internal contradictions, led to inadequate framing of the issues and inadequate intervention. This view is corroborated in many cities in the developing world:

Indeed, to many policy-makers halting urbanization means controlling informal-sector economic activities and the growth of squatter settlements; it rarely means curbing production of luxury housing or public-sector growth, and only

infrequently implies restricting modern-sector activities. (Charles Becker and Andrew Morrison in Gugler, page 93)

Another aspect of the issue of old systems of power that are still in operation in the modern landscape of Brasília is the case of “sub” employment. It is the norm for Brazilian metropolitan areas to have a network of sub-occupations that, by their informal nature, provide the cheapest form of labor to businesses, thus reinforcing relations of production that could very well be called a form of remunerated slavery. Often sub-employment co-exists with sub-housing, or the complete lack thereof. While most metropolitan regions (anywhere in the south) are inadequately equipped to resolve the population growth equation, part of the problems faced by the poor are caused by a lack of political will. The unequal distribution of social benefits often result in poor populations being pushed to areas far removed from the economic center, either by the hands of the government or by manipulations by the real estate market. In Brasília, this pattern of social control and spatial segregation is exercised to a high degree of sophistication. Time has proven that, despite this external architectural imposition, natural (historical) inclinations found the means to prevail. Another manifestation of this dystopia has taken place just outside the carefully manicured gardens of the capital, in the residential villages where the workers who helped build the city lived during the approximate four years of its construction, where a pattern of socially stratified land allocation was established. As part of the official plan to control the territory around the capital so as to avoid the favelization that is typical of other metropolitan areas of Brazil, the government has restricted access to land for housing, which has created an unmet demand both by upper and lower classes. This unmet demand results in the illegal division and commercialization of land officially designated for agricultural production, which in the space of months can become a new residential district. As the city continues to attract poor migrants, those individuals who can't afford to buy a lot, let alone build a whole

house, end up ‘invading’ public lands and creating the favelas that the founding fathers of the city zealously tried to avoid. The effects of this disorderly occupation of the territory are most evident in the degradation of land and pollution of watersheds. Significantly, despite being a city planned to have high environmental standards, it still doesn’t have, forty-eight years after its inauguration, adequate recycling and solid waste disposal.

Porto Alegre: Example of a City with a Working Solid Waste Management Program

In this paper, Porto Alegre is taken as a comparative model to Brasília. In contrast to Brasília, Porto Alegre does have a working solid waste management program. Because of their respective histories and government policies, Brasília and Porto Alegre are apposite sites of investigation. Despite being geographically distant with different dates of origin and regional backgrounds,¹ they exist within a similar national economic context and are subject to the same federal legislation. They are also faced with urban paradigms and challenges typical of large metropolitan areas of the developing world. At the same time, they represent two distinct stages of development in an urban solid waste management model that integrates social and environmental criteria in its ideological and technical framework. As a young city region where high-level experimentation in urban development has taken place,² Brasília finds itself in the beginning stages of developing such a management scheme, primarily in response to federal

¹ Brasília was founded in 1960, and its population is a mosaic of cultural regionalisms. The population of Brasília today is over 2 million people. Porto Alegre was officially created in 1772 and is much more homogenous in cultural terms. It has a population of approximately 1.5 million people. Since 1996 it has consistently had the highest standard of living of all Brazilian metropolitan areas, with a HDI of 0.865 and a GDP per capita of US \$4697/yr. IBGE, 2000a, b. Additionally, it has been the stage for important cultural and political events in the history of the country.

² At least in terms of the implicit ideologies of urban planning orienting its forms and spatial configurations.

legislative signals pointing to standardization of urban waste management along integrative lines. Porto Alegre, by contrast, as one of the most progressive municipalities in the country, has an eighteen-year experience with an integrated solid waste management model. The solid waste management system in Porto Alegre was based on the concept of solidary economy, which has important ramifications for its creation and also, in part, for its current shortcomings. It is useful to look at this point at solidary economy to situate it within Porto Alegre's waste management scheme.

Solidary Economy

While the academic concept of solidary economy has emerged only recently in Brazil, different forms of it have been around for over a century. It can be somewhat confusing to try and distinguish its different forms in the way described by some scholars. But basically the term as it is used today refers to a combination of two basic forms of popular socio-economic organizing derived from autoctonous elements and from European immigrants arriving in Brazil in the late nineteenth century. The European model in turn originated earlier during the industrial revolution in England (eighteenth and nineteenth centuries) in response to the unemployment, poverty and harsh working conditions observed in factories at the time. The ‘native’ incarnations of associativism in Brazil have also been a product of poverty and oppression, most noteworthy of which were the “Quilombola,” communities organized by runaway slaves prior to the abolition of slavery, and the religious communities organized by messianic leaders. Also important is the traditional indigenous form of social and productive structuring, which is highly communal.

Among the various manifestations of cooperativism, the creation of the “Cooperativa de Consumo dos Empregados da Viação Férrea (Coopfer)” founded in 1913 in the state of Rio Grande do Sul is especially important to note. This so-called “cooperative of consumption” consisted of a group of people joining to share the costs of acquiring goods of common consumptive or productive value. It is noteworthy that Coopfer persisted for almost 50 years, having amassed an eighteen thousand strong body of associates (cooperates). Amongst their achievements were the construction of a hospital, basic and intermediate-level schools, and technical training programs which prepared their members to become professionals in a variety of fields. Many other forms of cooperatives sprung out in times of economic stress, such as credit cooperatives, pre-industrial production cooperatives, and agrarian cooperatives.

Cooperativism lost much of its power and freedom during the military regime when the fear of communism led to the creation of austere measures of social control, generating some of the most atrocious acts of violence against citizens in the modern history of the country. With the reinstatement of democratic rule and the charting of a new constitution in 1988, the State relinquished its tight control over the enterprises. In addition to the more favorable political environment, the emergence of the neo-liberal economic paradigm in the 1980's created the conditions for the re-emergence of cooperatives. Today, there are thousands of cooperatives operating in the country. A great proportion of them adopt capitalist models of production and decision-making, while others are more democratic both in terms of sharing decisions and responsibilities and of equally distributing profits.

With population growth and increased poverty in particularly in urban areas (but also in rural areas), solidary economy groups emerged. These groups placed high value on processes of social, political and economic inclusion of materially disadvantaged people over pure

entrepreneurial profit. The formation of the majority of these groups was supported and often initiated by local NGO's, social movements, religious institutions, universities, unions, and even local governments. Two groups are well known nationally for their massive numbers and political visibility: the Landless Movement (*Movimento do Sem-Terra*, or MST) and the National Movement of Collectors of Recyclable Materials. Among the advances taking place at the government level, one can cite Federal support for the creation of the "State Forums" and of the "National Solidary Economy Forum," which help solidary economy groups to establish themselves and become self sustaining.

As one can see, the network of actors and the resources garnered towards developing a model that is sustainable is quite large and wide reaching. The question remains, however, whether this new version of the cooperative model, that is, one which is less capital driven and more geared towards social inclusion, can persist under the current economic paradigm. Some scholars claim that there needs to be a compromise between both aims, that is, without generating market competitiveness, these enterprises will either fall through the cracks or will indefinitely remain dependent upon NGOs and governments. Others yet claim that the solidary model is an opportunity to promote social change and create more humane patterns of social and economic interactions.

Methods

Fieldwork was carried out from early June to mid-August 2008, with the first phase taking place in Porto Alegre from June 6 through 30. The remaining period was spent studying the solid waste management situation in Brasilia. Through semi-structured interviews and participant observation, I collected usable data of the cooperative worker's quality of life and

work in Porto Alegre. In Brasília, data collection was accomplished through interviews and participant observation in meetings with various stakeholders.

An important development that took place in 2005 in Brasília was the creation and consolidation of CENTCOOP, an organization that represents and gives administrative and legal support to all the cooperatives in Brasília. During my stay in the capital I was able to speak with various people associated with this organization and was invited on numerous occasions to attend and observe meetings among cooperative leaders and between CENTCOOP and government institutions and the University of Brasília. These meetings provided me with a solid understanding of the intricate lines of interest operating in the field of recycling as well as the interaction amongst the various actors of this network. This allowed me to see the internal and external difficulties most cooperatives in Brasília face for creating cohesion amongst themselves and legitimizing their activities vis à vis society and the government.

Current Situation of Recycling in Porto Alegre

With the creation of the integrated solid waste management program in 1990, the situation of many trash pickers in Porto Alegre improved materially and politically. As solid waste recycling and “social inclusion” became a central feature of the urban development agenda of the city,¹ public awareness of the catadores’ working conditions was raised, which led to the group receiving a great deal of professional and material support from NGOs and other institutions both within the local government and internationally. Structured working environments were created and efforts were made to improve safety and health standards.

¹ The so-called “Popular Administration” (*Administração Popular*) under the left-wing Workers Party, in power from 1989 to 2004, had a pronounced social component in its agenda.

Although it is difficult to quantify improvements in the quality of life, it is possible to see in the upgrade of facilities, including communal kitchens, a physical space to conduct work, and presses for compacting trash, evidence that positive changes have been made to the cooperative worker's working conditions. Socially and politically catadores have been empowered by taking leadership roles and actively participating in cooperatives. And federal legislation granting catadores official status as autonomous workers ensures they can enroll in the federal retirement plan.

Despite some improvement in the lives of catadores in Porto Alegre, their working and social conditions never reached the level of integration initially desired, and it difficult to pinpoint how much better their lives are today with the cooperative system in place. One of the most disappointing findings about the cooperative system in Porto Alegre is that it is almost entirely dependent upon the public sector for its survival. The majority of the waste the trash pickers separate is provided by the cleaning agency DMLU (Municipal Department of Urban Cleaning) through its contracted companies, and a small portion is donated directly by private businesses or government agencies. This generates patterns of dependency that place the cooperatives which are not on good terms with the cleaning agency at a disadvantage.¹

Another problem facing the cooperatives is their limited bargaining power relative to the buyers (or middlemen). Prices follow market rules of supply and demand, and competition with a large number of informal street catadores not associated with a cooperative contributes to driving prices down. It is rather surprising that direct sales to industry have not evolved into common practice, since both the cooperatives and industry stand to gain by eliminating the

¹ Maria de Fátima Araújo Fortes, "Um Estudo Sobre a Rede de Apoio das Associações de Triagem do Setor de Reciclo na Região Metropolitana de Porto Alegre," (Master's Thesis), Federal University of Rio Grande do Sul, School of Management. Porto Alegre, 2006, 64.

middleman. Exploration of this phenomenon was beyond the scope of this project but deserves to be addressed at a later time.

The continued presence of street catadores (those not affiliated with a cooperative) illustrates the ineffectiveness of the present-day cooperative system in Porto Alegre for creating enough jobs for the catadores. There are at least 8,000 of them still working on the streets of Porto Alegre today. The relationship between the catadores affiliated with cooperatives and the street catadores is strained as they compete for the same resources. I observed a meeting with the leaders of the majority of the cooperatives and one representative of the *movimento*, which represents the street catadores, to discuss ways to place pressure on government agencies to comply with presidential decree 5940, which determines that waste from federal agencies has to be “donated” to cooperatives. From their interaction, it was evident that they face a tremendous challenge to reach some degree of positive cooperation. The fragmentation of groups of people that share the same social political and economic plight leaves them at a great disadvantage in terms of negotiating their claims and objectives.¹

Cooperative Workers’ Perception on Their Standard of Living

In the absence of quantitative data on the overall changes in the standard of living of cooperative workers, a few qualitative observations suggest unequal incomes and unequal levels of satisfaction:²

¹ Refer to Appendix A for comparative data of cooperative systems in Porto Alegre and Brasília.

² While these observations may not be statistically significant to make generalizations across the board, they represent individuals’ perceptions and are useful as a measure of worker satisfaction. To what extent dissatisfaction is the result of psychological predispositions or individual temperament cannot be estimated

- There were a few complaints about low income. There were complaints about bad working environment and conditions (mostly in one cooperative, and it had to do with interpersonal relationship problems)
- Some people said they would work somewhere else if they could (one person said she was looking for another job; the same person who refused to give an interview because she was not inclined ‘to tell lies, and the truth is not going to go over well at this moment and place’)
- Some said that decision making was not that democratic.
- Work by the outcasts of society, HIV patients, mental patients (São Pedro), drug/alcohol addicts, homosexuals, etc.
- A few said their incomes were smaller than that of street scavengers.
- Complaints about dirty recyclable waste (dignity)
- Presence of functionary
- Veiled unwillingness to take me to more places more often (I could only get him to take me to places once or twice a week)
- DMLU official discouraged me to make independent visits
- The need for authorization to interview Claudio, at Aterro da Zona Norte. (He claimed improvements since the closing of the Lixão).

The above findings indicate cooperatives are not a career “goal” for some trash pickers, despite the promotion of such from government agencies.

Solid Waste Management Plan in Brasília

In comparison to some other cities in Brazil, Brasília has not made significant progress in terms of managing its waste in a sustainable fashion. The main dump site, or Lixão, employs very basic measures to accommodate the two thousand tons of waste that is unloaded there daily. Plans have been devised to transfer it to a different location, as the current one has exceeded its capacity.¹ The new location is expected to be built according to international safety and hygiene standards, with the construction of an impervious layer at the bottom to prevent leakage, and the provision of engineered solutions to the accumulation of leachate and methane. No viable proposal, however, has been presented to address the situation of the catadores that currently work at the site. The sheer number of such individuals (estimated to be around one thousand people) makes it a very sensitive issue, socially and politically. Because the projected facility will not allow catadores to work on site – all separation of recyclables is expected to take place off site, at cooperatives – the challenge remains to find employment alternatives for them. Some catadores believe their profits will be reduced once the new waste dump is built, even if the state provides physical structures and equipment for them to separate the waste. At present, catadores on site have the highest incomes of all the people working in waste separation in cooperatives, since the bulk of the waste collected through SLU's contractor in the Federal District goes to their work site. Given a lifestyle of living hand to mouth, it is not hard to understand why they would choose the insalubrious conditions of an open dump over a more structured space, where their contact with waste would be significantly reduced. The group is currently juridically

¹ There are also environmental concerns regarding the infiltration of leachate into deeper layers of the soil and into an underlying aquifer, and the possibility of contamination of a nearby stream through surface runoff. Also taken into account is the fact that the Lixão borders Brasilia's National Park, the largest protected area in the District. Some families of trash pickers have already started settling within its borders, just outside the Lixão.

established as a cooperative, but in reality they retain semi-individualistic practices, as many organize themselves into small groups as was traditionally the custom.

In terms of promoting separation at the source, selective collection is being carried out in four wealthy neighborhoods of the Plano Piloto (Lagos Norte/Sul, Asa Norte/Sul) and in one satellite city (Brazlandia), but according to sources at the CENTCOOP, it is selective only in name, since the majority of the households are not properly separating the waste. An aggressive and effective campaign to educate the public has yet to be implemented. Although normal collection officially covers the entire Federal District, in practice poorer administrative regions and neighborhoods tend to get lower quality and less consistent services than their wealthier counterparts. There is not adequate monitoring in place to check compliance with the terms of the contract. There are common complaints about the inconsistency and quality of collection, with the tendency of some areas being favored over others. Dirtier, less developed areas are often at a disadvantage in trash collection. Household and commercial waste collection is predominantly carried out by one contractor, Qualix, with the exception of the administrative regions (or Regiao Administrativa (RA)) of Brazlandia and Santa Maria, where service is provided by SLU itself. SLU is a public enterprise (*autarquia*), that supposedly should be able to sustain itself through the revenues raised through service provision, but in reality is highly dependent on government support to carry out its activities, such as running the composting facilities in Lago Sul and Ceilandia, planning and monitoring, and paying for personnel. It is worth mentioning that Qualix has had its contract renewed without undergoing a bidding process, in what official sources termed as “emergency” contracts.

Furthermore, the appropriate laws regulating solid waste management still do not exist. According to a statement by the SLU:

the government of the FD is still not obligated to present a Solid waste management plan, although this is likely to happen, as a corollary/subsidiary to a new legal framework developed for the area of sanitation (law 11445, of January 5, 2007) which mandates, in article 11, the devisal of a basic sanitation plan. Because this law is very recent and has not yet been regulated, neither has it been implemented at the state and municipal levels, there is not obligation for the devisal of a plan to manage solid waste in the FD. (Plano Diretor de Resíduos Sólidos Para o DF)

Recycling Stream in Brasília

The network of actors in the recycling stream is rather complex, as in any other city where a combination of formal (official) and informal collection is the norm. As mentioned above, the bulk of all of the municipal waste produced in DF is collected by a company hired by the state, while a small portion is picked up by some cooperatives that are better structured and have one or two trucks (borrowed or purchased with money donated by BNDES¹) to make rounds to established locations, or pontos, (usually a supermarket, an apartment complex or commercial area, the “rights” to which a member may have secured prior to the formation of the cooperative.) Members of some cooperatives that have only recently been formed still retain some of the individualistic practices predominant prior to the legal establishment of the cooperative. For example, some people who still own a number of pick up places may “rent” them out to other, less fortunate members of the cooperative, or a newcomer. In practical terms, this person becomes a salaried employee of the waste entrepreneur. Some of these business people have horse drawn carriages, which they use to do their customary rounds. It is obvious that the profits from his/her personal investments will not be shared with the others.

Another group of players is the street *carroceiros* who are not affiliated with any cooperative, but might sell their services to a cooperative. It is not uncommon for some of these carroceiros to set up a type of warehouse in “invaded” land and sell directly to the

¹ National Bank for Social Development

middlemen/scrapdealer, a more profitable alternative. According to SLU's estimates, there are 2252 carroceiros in the Federal District. The last category of trash picker is the members of cooperatives and associations, who at this stage are still the minority of all trash pickers. Additionally there are street pickers who do their round on foot, and are not affiliated to any cooperative. These are probably at the bottom of the hierarchy of trash pickers, perhaps just above beggars and alcoholics who may sporadically resort to picking for fast cash.¹

As mentioned above, some cooperatives borrow trucks from the major buyer (Capital Reciclageis) in order to do their rounds. This creates a relationship of dependency and "moral debt" towards the buyer, which, while inevitable in the face of their material limitations, hampers their ability to bargain for better prices for their products. The margins of profit accrued by the buyer are such that even if they don't charge the cooperatives for using its trucks, they still end up having the lion's share of the profits. Dependence can also take the form of cash advancements to the cooperatives. For these reasons there are mixed opinions amongst the trash pickers about the buyer. Some see him (the owner of the company) as a benefactor, and his dealings with the cooperatives as a matter of course, typical of business relations. Others resent the tight control he has on the prices of the materials.² The last category of player in the recycling stream is the small middlemen or scrapdealer, the majority of whom sell to Capital Reciclageis. According to Centcoop estimates, 800 tons of materials are separated for commercialization by its associated cooperatives. And the Lixao group, whose affiliation to Centcoop is more formal than de facto, generates 400 tons of recyclables.

¹ The majority of trash pickers in the District have migrated with their families and maintain strong family ties. (Araújo in Bursztyn (2000), p. 88)

² Since there are no industries to reprocess recyclables, access to the nearest markets is limited to those who have the logistical capacity to package, store and transport large amounts of materials. In the District on Capital Reciclageis retains that capacity.

CENTCOOP: a Case Study

A wealth of information about the state of cooperatives of trash pickers was collected by taking part in gatherings with leaders, between these and government agency representatives, as well as other power brokers and stakeholders, such as FBB, Caritas, University of Brasília researchers and professors, NGO's, SEBRAE, Capital, and ASCOLES. Also valuable were visits to the cooperative facilities themselves, which allowed me to see their physical conditions. In this section I will proceed to describe some of my more relevant field observations. Through onsite observations I was able to record firsthand the differences among the cooperatives; some operate in very precarious conditions and others are fairly well equipped.

The creation of a local organization to represent a group of cooperatives holds promise as a mechanism for the local advancement of the interests of the group. Centcoop (Central de Cooperativas de Materiais Recicláveis do DF)¹ was conceived with just that goal in mind. Upon Centcoop's inception in 2006, only four cooperatives existed in the Federal District. Today there are eighteen of them that are legally established, although the newer ones are consistently strapped for resources and infrastructure. The fact that the Federal District is home to the federal capital, one of the wealthiest cities in the country with a large concentration of government agencies, partly explains the fast expansion. Proximity to the seat of power might also expedite political negotiations and facilitate tapping resources from development agencies, large NGOs with main offices in the city, and private foundations. According to the Bank of Brazil foundation, one of the major supporters of the cooperatives, today there are 2700 cooperative

¹ Central of Cooperatives of Recyclable Materials of the Federal District

members under the auspices of Centcoop,¹ out of a total of 10,000 catadores in the entire District (these figures vary from institution to institution, based on the classification criteria adopted for the estimates).

One of the immediate effects of the creation of Centcoop was to enable groups of street catadores operating informally to become legally constituted and begin to enjoy the benefits of recent improvements in legislation for waste management and poverty reduction. Centcoop, with the support of Bank of Brazil Foundation, holds an office in central location in Brasília. It offers prospective cooperatives its address for registration purposes, since most of the newly formed ones still lack the land on which they can legally conduct their activities. It also has an attorney on its payroll for resolving legal issues, which is particularly useful in walking the new cooperatives through the registration process. The attorney also resolves occasional problems that members may have with the police or other law enforcement agency.²

Another area in which Centcoop may produce results is in outreach to industry in attempts to set deals for direct sales, thus by-passing the middleman and securing a larger margin of the profits. On one visit to the office, I was able to meet a representative of an industry that produces paper towels, napkins and toilet paper, who had come from a different state specifically to speak with some cooperative members about the quality his industry requires for the different types of paper. The prices his company was offering for the materials were significantly higher than those paid by the local buyer. He even offered to have his company trucks transport the paper to the factory. From what I observed, however, no deal was closed, because there is no space designated for a warehouse – the only means to achieve the necessary scale for negotiating

¹ (<http://www.fbb.org.br/portal/pages/publico/expandir.fbb?codConteudoLog=3465>)

² The Federal District has a “land police agency” that is in charge of such business as enforcing zoning laws and conducting evictions.

directly with industry. The same happens with cooperatives in Porto Alegre which, to this day, still sell their materials to middlemen.

While the above encounter illustrates the difficulty in expanding direct sales, Centcoop leaders continue to push for land concessions, where they can build a central warehouse and triage units for the majority of the cooperatives. This hurdle is particularly frustrating for the cooperatives as there is federal funding already earmarked for investments in infrastructure and equipment. Additionally, balers have already been donated to the majority of cooperatives, but since most of them operate either on public land or unclaimed private property, installation of electricity is not possible. As a result most of them still cannot use the newly acquired asset.

In addition to the balers, one recent material improvement was the donation of three wheeled motorized mini-trucks that are used for collection of materials from federal agencies. The move was a strategy to reduce the number of carriages on the streets.

In terms of the structure and decision-making process, Centcoop operates on the same principles of democracy and self-sufficiency/self-determination typical of a cooperative. There is a simplified hierarchical structure, composed of a president and the *conselho gestor* (like a board of directors) made up of cooperative leaders, all of which are, in theory, elected through a democratic process. Presidents have two-year mandates, at the end of which a new general election is carried out. All cooperative leaders have equal voice in decisions and the president has to comply with decisions made by the majority. Monthly meetings are organized to discuss matters of collective relevance, and other events involving the catadores also require the presence of the leaders. On its payroll are the president, a “technician,” a secretary and a few “directors” who serve as negotiators, spokespersons, public relations, and representatives of the

institution in meetings and other events. With the exception of the secretary, the others may maintain some of their obligations with the cooperative from which they come.

The technician belongs to the Center for Technological Development, from the University of Brasília, and is a type of spokesperson and consultant on technical matters, such as promoting capacity building, improving book keeping and accounting, and advising on organization and management strategies. Despite the difficulty to achieve improvements in the short term on such a materially diverse group of cooperatives, they are badly needed in order to improve efficiency and raise the standards of production and management. By doing so, the cooperatives will become competitive enough to qualify for service contracts with the cleaning agency.¹

In addition to technical and organizational limitations to the majority of cooperatives, there are also capacity limitations, as well as some intra and inter cooperative lack of cohesion. Some cooperative members or leaders are suspicious of Centcoop, and fear that it might be engaging in back door negotiating. Reciprocally, the leadership at Centcoop are suspicious of certain leaders of cooperatives. Internal power disputes are also not that uncommon, as is the culture of individualism that evolved amongst former street pickers.

The financial resources to pay for rent, electricity, and the above expenditures are mostly provided by the Bank of Brazil Foundation. A small fraction of the profits of each cooperative is dedicated to Centcoop to cover part of the operational costs. This is also a sore point in the relationship with some cooperatives, who see this repasse as a potential source of corruption. The dependence on a donor agency is not ideal, and autonomy is expected to ensue, as is the resolution of some of the abovementioned obstacles.

¹ Law 11445/07 allows cooperatives of trash pickers that are fully and legally established to compete in bidding processes.

The following are the main goals and reclamations currently in Centcoop's agenda:

Goals:

- autonomy vis à vis government and political parties
- strengthening of CENTCOOP's network of commercialization and organization
- empowerment and self-governance
- compliance with the extant legal instruments
- raise in value of materials and centralization of commercialization in order to produce greater volumes, which makes it possible for them to deal directly with the industry, thus getting better prices for their products
- Improvement of management, accounting, book keeping, transparency
- Provision of legal support and representation for those who need

Demands:

- land concessions of a certain minimum number of years (20+ years) for the construction of depot (triage unit and office)
- well structured triage units
- payment for the services provided
- housing
- (enrollment in social security program)

My general assessment of the situation of the cooperatives in Brasília based on visits to some of them and conversations with cooperative leaders, the president and directors, is that

much has to be achieved before the network can compete on par with capital for provision of cleaning/recycling/collection service. Also challenging is the need to foster cohesion within and amongst the cooperatives, while gaining their trust on Centcoop. Major external barriers have to be overcome as well, such as the problem of the land, and the dependency on the major buyer. In terms of the general morale of the leadership, I would say that they demonstrate much more optimism and enthusiasm than their counterparts in Porto Alegre. There is a sense that things are changing fast and for the better, and their regular contacts with power brokers and local pundits seems to give them pride and hope, although a certain degree of healthy skepticism also seems to exist. One emblematic example of the greater recognition they have received recently by the authorities and the pride that infuses in some of them are the photos taken with president Lula on the occasion of the signing of new law.

Labor and Economic Considerations for the Cooperative System

For the purposes of this discussion I will address two general aspects of the cooperative system of organization of labor and economic production, namely (1) problems inherent to the mode of incentives directed to production and participation and (2) obstacles to the execution of the basic principles of the cooperative economic organization.

One of the issues frequently brought up by the catadores with whom I interacted was the possibility, or even temptation, for free riding. Because one of the tenets of a cooperative solidary enterprise is to share responsibilities, decision-making *and* profits equally amongst all members of a cooperative, there is limited incentive for working harder in order to raise productivity, unless the group is fairly cohesive and bound up by strong ties of reciprocity. Fragmented groups, that is, those composed of individuals with limited cultural or kinship ties,

tend to experience free-riding more than more tight-knit groups. For that reason, the development of a group identity and strong interpersonal bonds ought to be one of the primary aspects of cooperative human resources management in those places where they are not pre-existing.

On a field visit to one cooperative in Porto Alegre (Arevipa) I was informed of the high turnover it has experienced as a result of problems with toxin abuse, tardiness, and overall difficulties to adjust to the work culture. Perhaps not by coincidence, that cooperative was, in my assessment, the one with the lowest morale of the five that I visited. Also noteworthy is the fact that its leader did not attend the monthly meeting of cooperative leaders, which I was invited to attend. It is interesting to note that the leader of the second least morally positive and cohesive group with which I came in contact did not attend the referred meeting either. This suggests that intra-cooperative cohesion may be correlated to an unwillingness to interact with other cooperatives. Significantly, there were comments at the abovementioned meeting criticizing the referred leaders for their absenteeism and accusing them of free-riding. The main item on that meeting's agenda was the discussion of the strategies to force federal government agencies in Porto Alegre to comply with the Presidential decree 5940/06, which mandates that such agencies donate their recyclables to cooperatives of trash pickers.

While the potential for free-riding is maximized when there is no connectivity amongst members, the potential for optimal productivity is conversely maximized when members do enjoy high levels of proximity. Having said that, it is reasonable to expect that, as cooperatives begin to be mass produced on a national scale by top-down initiatives, officials in charge may face the challenge of promoting a genuine culture of solidarity and cooperation among strangers, or individuals not used to working with others. On the other hand, personal acquaintance alone

is not a recipe for success. Again, on my visit to the cooperative Arevipa mentioned above, I learned that under the institution's statute, only members of the local community (residents of the neighborhood) are allowed to join the cooperative. In other words, the turnover rates at that particular cooperative were high in spite of the fact that every new admittee is an acquaintance. Another challenge relating to incentives is the difficulty, or even unwillingness, of some cooperative members to see themselves as "owners" of the enterprise and act as such by participating actively and responsibly in decision-making, management and production. While I was able to attend only one internal meeting among cooperative members, in general I got the impression that some people felt restricted as "employees," and did not perceive themselves as having the right to voice their opinions over those of the leader, for example. The study by Silva, describing the patriarchal relationship between the leader of one Brasília cooperative and his fellow "associates" as being exceedingly undemocratic, corroborates this view. (Silva) Another example is the relationship between the leader/founder of the cooperative referred to above (the one whose meeting I attended) and her pseudo-colleagues. This was a case of strong leadership exercising its control over its subordinates not by force or aggressiveness, as was the case portrayed by Silva (above), but by charisma, wit and indoctrination. Although my impression was forged from a single visit, the submissive behavior of the rest of the group was striking.

Does the assumption that a cooperative is made up by a fairly cohesive group of people, by itself guarantee the viability and sustainability of the enterprise? The aspect of governance may be one of the most decisive factors impinging upon the goal of sustainability and self-sufficiency. Mutual support and positive interaction amongst the various actors of the production chain, despite its utopian overtones, is crucial for the success of the cooperative

model (at least from the standpoint of the catadores). Where there are no minimal degrees of transparency, accountability, equitability, there are too many potential sources for misuse of power, pork barreling, and exploitation of people for personal gain. The example of Porto Alegre epitomizes one of the potential pitfalls of the model.

Although I do not intend to discredit the advances that have been made in Porto Alegre, I have to say that those advances have not had the effects they were propounded to have. A point of stagnation may have been reached beyond which cooperative members in general don't seem to be capable (or willing) to move forward. Perhaps the expectation that it should be at a more advanced stage of social development conceals a utopian assumption about the true potential of the model to effect change. It is a point of debate, however, whether the cause(s) of stagnation originate(s) in the behavior of the state, the members themselves, or both, which many not be productively answered at this time.

The answer to the question of whether the cooperative model is the solution to poverty and unemployment in cities is both yes and no. In strict economic terms, building new job positions does help reduce unemployment, which in turn reduces poverty, although it may not eradicate it. Conversely, in social terms, it is may not be a solution at all, but a palliative, which ultimately may serve only a few poor people and the state by attenuating social tensions resulting from unemployment.

The case of Porto Alegre where thousands work independently off the streets, while only a relatively small number works at the cooperatives clearly indicates that it is not. How many cooperatives would have to be created in order to accommodate the estimated 8,000 carroceiros (horse carriage owners) in Porto Alegre's Metropolitan area alone? And how can one convince most of those working independently on the streets that working with others, following rules, and

sharing profits is better for them? Critical questions still remain: Are cooperatives economically viable? Can the cooperatives become effective catalysts of positive local social inclusion? What lessons can be learned from Porto Alegre's example? With the push for the creation of cooperatives all around the country, what will be the fate of the overwhelming majority of street catadores, those who don't make the cut, or who refuse to join a cooperative? Although definitive answers are not possible at this juncture, I will attempt to address some of these questions below.

On the economic front are the cooperatives viable?

Based on studies carried out in other cities, cooperatives of trash pickers are relatively cheap because they don't require payment of salaries or benefits, as there are no individual contracts. This somewhat eases the burden placed by the collection system, which is expensive as it is, and will surely increase in expenses once the selective collection structure is put in place. For the cooperatives themselves, their solvency will depend very much on whether or not they can get their services appropriately paid for by the government. It is uncertain if Law 11445/07 is going to play out in this context, allowing the cooperatives to equally compete for a share of the market for waste collection. Alternatively, they may end up like the cooperatives in Porto Alegre, highly dependent on the government for its materials. This scenario, however, might increase the costs of waste management and disposal, such that it will be prohibitive to pursue the abovementioned path, which would prove difficult for the cooperatives to overcome.

Can the cooperatives become effective catalysts of positive local social inclusion?

Having established that, in terms of scale, a system of cooperatives that will give jobs to the majority of willing catadores is not economically or even physically feasible, the question

remains whether it can be a catalyst for social inclusion. If so, what aspects of a model of waste management that incorporates the work of trash pickers need to be observed in order to make it successful?

The present discourse geared towards promotion of the integrated model of waste management (one which includes cooperatives of catadores) touts the educational, socio-existential value of cooperatives. Gaiger and Singer, whom are exponents of the thinking on solidary economy, seem to agree on its potential as a mechanism of social inclusion and even as mode of production that holds promise as an alternative to the purely profit driven model of production and work relations currently in place. By bringing relations at the work place to a more humane level, they theorize that a cooperative can recreate social values and symbols and perhaps even identities based on cooperation more than on the accumulation of capital or professional skill. They are quick to acknowledge, however, that such forms of production don't usually work so well in the current system of production. Carrion (relatorio tecnico CNPQ) and colleagues also seem to think along the same lines, and they base their opinions on the fact that “there is a contradiction between the cooperative and self-governing forms of organizing labor and the economic performance of the solidary economy enterprises. Those enterprises that most closely observe democratic management and organizational practices are the ones that demonstrate the most fragile economic performance” (14). According to Gaiger, however, this contradiction is just a question of inadequate design, and that business-minded management and egalitarian cooperation are not necessarily mutually exclusive. He proposes the “need to construct a new ‘business logic/mentality’, intrinsic to the ‘logic of solidarity’” (51).

Assuming that the cooperative model can incorporate all of the abovementioned principles of solidary economy while remaining economically competitive and efficient, would it

still be a good argument for supporting the “universalization” of the model? In the ideal world, where every city is the same, every government official is equally honest, every catador is driven by the similar aspirations and values, perhaps. Adopting more realistic premises, whereby something between the two extremes is possible, is more realistic.

Internal contradictions/dilemmas of the discourse

If one were to think in terms of what is in the best short-term interest of the street catadores, one would have to agree with their view that individualism/competition is better than cooperativism. From the standpoint of the State, however, for which actions and policies need to prioritize overall societal needs, one would have to accept the cogency of the argument pushing for “normalization” or “standardization” of this particular group of people, which, in its view, is a potential social hazard. This process implies long-term strategic planning to promote public peace and prosperity, the achievement of which has to account for aspects of economic progress, which in turn requires developments in social capital and entails the elimination of the vicious circles of poverty and illiteracy, of which the catadores are a major symbol. A major conundrum, however, is that neither view may be fully right. While the catadores might profit ultimately from working inside the grid and being exposed to a more regular, stable lifestyle, the opposite is just as likely to occur. Perhaps it is ultimately a question of numbers, or critical mass: if, say, the city of Porto Alegre decides to carry out its plans to built a recycling center to accommodate a large number of street catadores, will there be enough people willing to join, and of those who do join, will the majority stay on, assuming the working conditions will be favorable and incomes are comparable to what they made on the street?

Also, in practice, do governments operate fully consistently to the principles of governmentality, which is to say, would decisions be made with the best intentions in mind? And even if the best intentions were there, would that be any guarantee of success? Better yet, is it possible that the best intentions are based on the ‘wrong’ assumptions, in which case, any intervention could be rather ineffectual, if not disastrous? These questions become even more pertinent when one brings to bear the various interests involved in the area of recycling, particularly those attached to capital and state strategies of social control.

The government wants to work towards promoting urban sustainable development, which entails protecting key components and processes of the environment and reducing poverty. That’s why laws have been enacted, policies point towards more integrative and socially inclusive waste management practices, money is being invested in improving the situation of the catadores. All of this, however, is very expensive, and so are some of the aspects of the integrated management model, such as the selective collection. This may not be sustainable from an economic standpoint, and it may not be socially viable either (or it may not achieve the desired effect in society). On the other hand, while the addition of selective collection rounds to the standard pick up may raise costs considerably, the use of the ‘free labor’ of the cooperative catadores the net benefits would probably be positive. Also, allowing the street catadores to continue their work undisturbed will also save the city on collection costs. This last scenario, however, may not necessarily be consistent with the goal of educating people and turning them into full fledged citizens.

Conclusion:

Are Social Change and Development Possible Through “Social Technology” Such as a Cooperative? Some Thoughts

A meeting promoted by the Inter-Ministerial Committee for the Inclusion of Catadores I attended on August 6, 2008 encapsulates the political and social obstacles trash pickers face. The meeting brought together representatives of some of the Federal Government Agencies (Comissões de Coleta Seletiva) to discuss ways to improve logistical and administrative aspects of the donation of their separated waste to cooperatives, in compliance to Presidential decree 5940/06. The meeting was voluntary; the participants there joined out of personal or work-related interest. Many of the invited participants, however, did not appear.

Of great interest to me was the way in which some participants referred to catadores in a condescending manner. A few participants called the catadores *coitados* and *maltrapilhos*, or people for whom one should feel pity. One participant approached the issue at hand by referring to the catadores as people outside of society. The representative from the Ministry of Education replied to his view of what constitutes society by asking, “are the catadores not society? The level of discussion and the terms used illustrate the view of most of the bureaucratic elite, made all the more evident as these views were from those who represent the people as designated leaders of their respective Federal agencies. It is also important to note that only one catador was present at the meeting, which calls into question their level of interaction at the administrative level.

It is a rather broad and complex issue, but I will venture to say that without some fundamental changes in the power structure and inter-class values, employing the cooperative model is tantamount to (1) “giving people something to do” as a form of soft social control. Doing so will create jobs to create social stability and to prevent the social consequences of

absolute destitution by regimenting people. Historically, the Brazilian government has demonstrated a tendency to employ such tactics to dissipate social tension, while advancing its political, geopolitical and economic agendas, and (2) appropriating cheap labor. Some pundits do not see anything reprehensible about this; and I would agree with them if there was historical evidence that taking people out of misery into a state just above it will in the long run contribute to promoting fundamental change (since the socio-symbolic gap between the haves and the have-nots would be attenuated). But as a mere palliative, it may contribute to dissipate social tension. This is a contentious issue because if a society tends to value individuals more based on what they have rather than other social status symbols, perhaps helping people rise out of poverty might indeed contribute to integrating them into society. But then where does one set the cut off? How much would a catador have to earn to be considered an equal to another citizen? Could he continue as a catador and still be accepted? And even if a catador could make more money than a good portion of the lower middle class, there still remains the stigma associated with his profession. This seems to me a conundrum that cannot be resolved unless two fundamental changes take place: first the catadores would have to be called something else: perhaps recyclers, or, as I heard some cooperative workers in Porto Alegre say: environmental agents. And I contend that that sort symbolic shift would be hard to achieve without the participation of society at large, basically by acknowledging and respecting their work through adequate separation at the source. The catadores would have to be dissociated from the stigma of trash collecting and become indispensable actors in the socially, economically, and environmentally valuable (also indispensable) production chain of recyclables. The idea that the catador is part of a surplus labor pool would be erased. Another advantage is that by giving them the basic means

to survive one will be giving them also the chance to rise in the social ladder, with the long term salutary effect of reducing extreme inequality and historical exploitative practices.

We must ask ourselves, though, do the catadores or the poor need recognition from society at all? Isn't the very impetus of trying to think about ways in which their lives can be improved a sterile exercise in intellectual hubris? Does this effort imply engagement in the very sort of condescending behavior towards the poor as those he criticizes? Further yet, is it not possible that his/her self-serving endeavor carries elements of the typical decision-maker's rationale? (topical, near-sighted interventions based on the fear of crime, disease, destitution (social chaos, in short) or even perhaps a reactionary zeal to shape one's society in the likeness of a developed city (poverty-free, clean, predictable, orderly, efficient?) Might that be the essential driver of his instinct to act upon the perceived problem?

In my dealings with the catadores, particularly those in Brasília, with whom I was able to interact more due to the longer time spent in Brasília and the unmediated access I had to them, it became evident that they are, in general, well-adjusted people. Some catadores I talked to could care less about what other people thought about them. Their sense of self did not seem to be dependant upon others' opinions or the image that they conveyed to society. Many catadores have families and are proud individuals that carry an atmosphere of optimism about them. They are confident enough to sit at a table and discuss issues with government officials, pundits, academics, businessmen. As Ceica, one of the cooperative leaders in Brasília, stated, some of these people (the catadores) are very intelligent and can understand things just as well as any other person despite the fact that they don't read or write very well. They just happen to not have had the opportunity to learn. Another cooperative leader, Mr Luiz, said: these people are only different from the upper classes because they are dressed differently and look dirty, but in

essence they are the same, and have problems and inner conflicts that are fundamentally the same. The upper classes ‘seem’ to be leading fuller, better adjusted lives, but that may very well be an artifact of their material means, which can be used to conceal. The poor, by contrast, don’t have much to hide, and therefore, by the force of their own appearance and of their visibility, they might seem maladapted.

Is a solution being considered, then, to a problem which does not exist? I believe there is viable reason to pursue this exercise of considering improving the quality of life – as nebulous a concept as that is – of the catador. The problem is the relevance or viability of the cooperative system, whether it changes people working in cooperatives is also debatable, especially when much of the help being dispensed has at its base old social and cultural premises, such as power relations and attitudes, like clientelism. Good governance might help, but that in itself symbolizes an ideal. Moving closer to such an ideal would entail changing not only institutional behavior and norms (laws and public policy) but a change in perception and attitude. Without at least some indication of the commitment to change, good governance will remain an impracticable ideal. Cooperative models would thus redound in mere social control. In that sense the newly found government proposed solution to the problems of waste, both material and human may very well be a reincarnation, less glamorous without a doubt, of the urban Utopia of the founding fathers of Brasília.

With the current state of economic development in many cities, eradicating street picking is not socially viable or economically feasible. And it does not have to be eradicated, in most cities. What ideally would have to be eradicated is the stigma associated with the activity. Perhaps an initial step would be implement policies that will raise public participation in source separation so that pickers don’t have to have direct physical contact with waste

contaminated/soiled with putrefying organic matter, hazardous materials, animal feces, sharp edged objects, etc. The stigma cannot be lifted unless the perception (among trash pickers and the public at large) that they are dealing with “trash” transforms into the perception that they are dealing with a resource of high economic and environmental value. This change in perception would entail also the understanding that recyclables are not trash. In other words, the idea of human and material trash has to be decoupled from the recycling strand of the waste stream.

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Appendix A. Comparative Table of Porto Alegre and Brasília Cooperatives

	Obstacles		Advances	
	Porto Alegre	Brasília	Porto Alegre	Brasília
Internal	lack of intra and intercooperative cohesion and cooperation. Little group identity. Lack of political vision and clout (immediatism)	Some level of group identity. Cooperatives fairly new, but interaction is more regular. More of a political vision, although embryonic. (immediatism)	People taking positions of leadership (participating in meetings with cleaning agency and other institutions) demonstrate some enthusiasm and optimism. Sense of empowerment.	People taking positions of leadership (participating in meetings with cleaning agency and other institutions) demonstrate some enthusiasm and optimism. Sense of empowerment.
	Lack of trust in other cooperatives, and in the state's agency	Some level of mistrust in CENTCOOP. Mistrust among some catadores		
	No data available on	Culture of Individualism remnant of pre-cooperative street scavenging working culture		
	Difficulties to adapt to working regime, production targets, following work schedules			
	Some lack a sense of 'ownership' or responsibility for the enterprise. Used to not having an opinion and to following orders			
	Some decisions not democratic (strong leaderships make unilateral decisions)	Some decisions not democratic (strong leaderships make unilateral decisions)	Internal statute and regiment based on principles of democratic cooperation (solidary economy).	Internal statute and regiment based on principles of democratic cooperation (solidary economy).
	Technical and administrative limitations (limited book keeping). Only now computers are being introduced. This poses a challenge, as illiteracy levels are high	Technical and administrative limitations (limited book keeping). Only now computers are being introduced. This poses a challenge, as illiteracy levels are high	Computers have been donated	Computers have been donated

	Obstacles		Advances	
	Porto Alegre	Brasília	Porto Alegre	Brasília
	Free riding			
	Competition among cooperatives for the 'favor' of the cleaning agency. Better relations might translate into more waste being dispensed	Leadership disputes		
External	Some		Some complementary economic activities, such as contracts with private companies for waste collection or building cleaning services	Some complementary economic activities, such as crafts made from recyclables. Sold in craft fairs. Potential for future government contracts to provide collection services. (contingent upon improvements in organization and equipment)
	Economic and social exclusion: double stigma (poverty and the work with trash)	Economic and social exclusion: double stigma (poverty and the work with trash)	Cooperatives offer income generation and some degree of social inclusion through work and mutual help.	Cooperatives offer income generation and some degree of social inclusion through work and mutual help.
	Incomes are generally low and not equitable (there might be favoritism on the part of the cleaning agency)	Income levels vary depending on when and how well the cooperative is established.		
	Significant levels of competition for resources from street scavengers	Competition from street scavengers not significant at this point		
	Mafia of the agencies, that refuse to 'donate' their materials; instead, they sell it for personal or employee group gain.		Some mechanisms may be employed to force compliance with presidential decree 5940/06.	
	Most cooperatives lack physical and technical basis: some have no land for building sorting facility. Govern. Reluctant to provide long term use concessions.	Cooperatives have a physical space and presses to compact materials and add value to material.	Presses have been donated, but await physical structure to be installed. Bank of Brazil foundation donated motorized carts for collecting and transporting waste.	

	Obstacles		Advances	
	Porto Alegre	Brasília	Porto Alegre	Brasília
	Almost full dependence on State agency for waste.	Some are tied to monopolistic buyer through debt relations.	State agency provides logistical, technical and administrative support without which cooperatives could not operate	Buyer lends trucks and makes cash advances without which some cooperatives could not operate.
	No direct commerce with industry. Middlemen are in charge, therefore have the power to set prices	No direct commerce with industry. Middlemen are in charge, therefore have the power to set prices		
	Presidential decree 5940/06. The idea that the material is 'donated' feeds into a culture of charity and dependence.	Presidential decree 5940/06. The idea that the material is 'donated' feeds into a culture of charity and dependence.	Presidential decree 5940/06. Determines that waste from federal agencies has to be 'donated'.	Presidential decree 5940/06. Determines that waste from federal agencies has to be 'donated'. A lot of money in paper donations.
	Income taxes are high relative to their income	Income taxes are high relative to their income	Federal legislation granting catadores official status as autonomous workers. Now they can enroll in the federal retirement plan.	Federal legislation granting catadores official status as autonomous workers. Now they can enroll in the federal retirement plan
	National Movement of Collectors of Recyclable Materials favors street scavengers, which compete with co-ops for waste		National Movement of Collectors of Recyclable Materials provides representativity in negotiations with government, despite not being on good terms with cooperatives	National Movement of Collectors of Recyclable Materials provides representativity in negotiations with government, despite not being on good terms with cooperatives
	FAARGS has lost the trust of some cooperatives due to a past episode of corruption under a different leadership.	Some are hesitant to give CETCOOP so many powers. They fear corruption.	FAARGS – provides local political representation	CENTCOOP – provides local political representation, logistical, administrative, and legal support, and negotiates prices of materials. Is trying to establish a central warehouse from which to sell production by all affiliated co-ops (potential to negotiate directly with industry)

Obstacles		Advances	
Porto Alegre	Brasília	Porto Alegre	Brasília
Complaints that some of the NGOs and other institutional programs are short-lived and politically motivated.	Complaints that some of the NGOs and other institutional programs are short-lived and politically motivated.	Support network of NGOs, churches, national workers Union (CUT, or Central Unica dos Trabalhadores), Unitrabalho, Forum Lixo e Cidadania, etc.	Support network of NGOs, Universities, Bank of Brazil foundation, Inter American bank, government earmarks for development of infrastructure (under PAC, or program for the acceleration of growth)
		Some level of capacity building. Educational value of interaction with different organizations. Attention received is a sign of growing awareness of their importance.	Some level of capacity building. Educational value of interaction with different organizations. Attention received is a sign of growing awareness of their importance.
Public still needs to improve household separation practices. Much organic waste is mixed with solid waste.	No effective selective collection in Brasilia. All the waste from households and businesses is mixed. Great lost recycling potential due to contamination. Population not properly educated. Policy not yet implemented.	Environmental education of consumers. Selective collection in Porto Alegre indicates greater consumer awareness and public participation.	Federal law on sanitation and solid waste management in process of being translated to the local level. Plans are being made to establish selective collection in all of the Federal District.