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ABSTRACT

This booklet should be of interest to educators and people seeking to understand the mechanisms of exclusion and the forging of new paths towards community empowerment and basic education skills. Many inhabitants of Cairo, Egypt, depend on the zabbaleen/garbage collectors but know very little of these people who make their way up and down the city's crowded streets every day picking up and recovering refuse. If they looked into the zabbaleen's history and that of the garbage neighborhood of Mokattam, they would discover a busy world where inventiveness and the need to survive have given birth to new ways of looking at the environment, basic education, and development. Since 1984, the Association for the Protection of the Environment (A.P.E.) has been working with the zabbaleen in improving living conditions and bringing about change. The result is a series of impressive programs where literacy, numeracy and health are combined with practical skills, rag and paper recycling units, neighborhood upgrading schemes, an organic compost plant, a children's club, a nursery and much more. Today, the zabbaleen, in collaboration with A.P.E., are taking their skills and programs beyond their neighborhood of Mokattam to other garbage villages around Cairo, to South Sinai and abroad. This spread of expertise shows how waste management can become an entry point for the empowerment of the excluded. (LB)

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Recycled Rags, Renewed Lives. Education To Fight Exclusion Project. Innovations for Youth No. 3.

by

Benedict Faccini

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2

Education to fight **EXCLUSION**

Recycled Rags Renewed Lives

Working with
the garbage collectors
of Cairo, Egypt

The Association
for the Protection
of the Environment

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Recycled Rags Renewed Lives

by Benedict Faccini

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Education to fight **EXCLUSION**

What is being done today about the tide of exclusion facing so many of the world's young people? Images of youth unrest, unemployment, delinquency, despair and conflict are all too well-known, as is the discourse on their causes, but how well-known are the solutions being actively sought around the world, particularly in the countries of the

knowledge and will for change as its starting point, using local creativity and, often, the popular or informal economy as the impetus for income-generating activities. Through the informal economy, where solidarity and entrepreneurial skills are vital, young people can acquire literacy skills and see the concrete results of learning, working together and setting up businesses.

A few words about the Project...

South? With this present series, Innovations for Youth, UNESCO's youth project "EDUCATION TO FIGHT EXCLUSION" has decided to identify, promote and connect particular projects around the world, which are indicative of new trends and seem to hold rich lessons for all those combating youth marginalization. It is, indeed, vital that governments, UN agencies, international organizations, NGO's, educators and also communities learn of innovations for youth and acquire a new vision of how to approach young people's problems and learning needs. Current economic structures and education systems are obviously not serving the best interests of all young people. Merely advocating their expansion can only lead to further marginalization of young people and accordingly further jeopardize the future of the world. Change is urgently needed, particularly in the field of basic education.

As well as this series, UNESCO's project "EDUCATION TO FIGHT EXCLUSION" also directly supports a selection of projects in over 30 countries. This can mean developing practical skills such as food processing, recycling techniques, energy technologies or creating alternative forms of education, such as learning through video and radio, night and street schools, youth camps, house construction programmes, schemes for the upgrading of slums. More often than not, these activities are in the non-formal education sector. Each of the UNESCO youth project's initiatives takes young people's

The wealth of experience in the informal economy shows that young people, especially in the South, have not been waiting around for answers to be given to them. Instead, in the sprawling and crowded cities of the world, they have already begun to pull through, coming together in networks, creating associations and developing small jobs. It is UNESCO's task, today, to validate their work and use it as a way to elaborate strategies for change and create a renewed impetus for basic education for youth. The world can no longer afford to ignore the plight of its excluded, notably in developing countries. It is up to all those fighting for change to support projects and call for a better use of resources, creating a wider and more sustainable vision of the world and education where young people, even the most excluded, can find their place.

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Table of contents

A busy hidden world	6
An association with Mokattam	10
Structure and method	12
APE Philosophy	14
"Our way of learning"	16
Mokattam spreads the word to Tora	22
A door-to-door campaign in Maadi district	26
To the Red Sea and South Sinai	28
Sorting through the past	31
The three E's: Environment, Employment, Education	33
From rags to empowerment	34
 FEATURES	
<i>The zabbaleen recycling web</i>	36
<i>A breath of fresh air</i>	38
<i>An APE trainee</i>	39
 Bibliography	 40

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9

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A busy hidden world

Mokattam, the most well-known of Cairo's garbage villages, lies to the east of the city, not far from the Qal'a or old citadel. Tucked away beneath a hillside, inside a former quarry, it is not visible from the bustling and sprawling city below - a hidden world going about its own business. For most inhabitants of Cairo, Mokattam is a distant place, an impenetrable labyrinth of narrow streets and alleyways where only the garbage collectors or so-called *zabbaleen* go, their trucks and carts piled high with the city's waste. What goes on in Mokattam? No one cares to know. Yet this is, in many ways, the very heart or stomach of Cairo, where much of the city's refuse is sorted and transformed to support the lives of thousands of *zabbaleen* and where the extraordinary empowerment of this marginalized group began.

The *zabbaleen* are the sons and daughters of subsistence farmers who started emigrating from Upper Egypt, mostly the province of Assiut, about 400 kms south of Cairo, in the 1940s. These rural emigrants came to Cairo in search of a better life, fleeing poor harvests, harsh treatment at the hands of landlords and general poverty. Unskilled in the ways of the city and its employment systems, they built makeshift homes for themselves on the outskirts of Cairo without legal entitlement to the land. They stuck to what they knew and began to raise animals such as goats, geese and chickens as a means to survive. Being recent arrivals, they searched for jobs wherever they could. They ended up mixing with the *wahi*. These men, from the oases of the western desert, had found a market for themselves in Cairo organizing the collection of garbage from houses in the city. They negotiated directly with the inhabitants of a given house for the disposal of their garbage.

The recent emigrants from Upper Egypt saw that they could also use household waste as a means to feed their animals and started working with the *wahi* collecting and sorting garbage. As the years went by, more and more families arrived from Upper Egypt and joined in these waste collecting activities becoming the *zabbaleen* of Cairo. Each successive wave of rural emigrants built flimsy homes on the outskirts of the city and also kept on being resettled because they were occupying land without legal entitlement. Finally many of the *zabbaleen* gathered together under the cliffs and quarries at Mokattam, at the very edge of the city, hoping that they had, at last, found a haven, where the municipal authorities wouldn't pursue them further. They had, indeed, for a while, found somewhere more protected to work, but the very nature of their refuse-collecting activities and their isolated location meant that they were cut off even further from their rural roots and thrown into a closed world of squalor where no one from mainstream society dared penetrate. Mokattam, for many inhabitants of Cairo, quickly became synonymous with dirt, waste and poverty.


And so Mokattam remained for many years - "a vision from Dante's Inferno" say those who were able to penetrate into the neighbourhood before the Association for the Protection of the Environment (A.P.E.) registered to work in the area, in 1984. The streets and alleyways in those days were knee-deep in garbage, clogged in smouldering piles of refuse, animals wandering in search of edible matter, women and girls squatting on the ground inside their houses sorting through the garbage manually, often cutting their hands and risking diseases, to recover precious bits of metal, plastic or glass - anything recyclable.



The *zabbaleen* way

The *zabbaleen* set out early every morning onto the streets of Cairo. The women and girls stay behind to wait for the first piles of refuse coming in on the trucks and carts from the city (the cultural norms of Upper Egypt dictate that a girl over the age of puberty should not venture into the city unaccompanied and put the family's honour at risk). Generally each family has a particular route in the city and a few, today, have a recycling specialization which can range from glass, paper and cardboard, cloth, black plastic bags, mineral water bottles, containers, aluminum, organic compost and tin to animal bones. Families obviously prefer to service middle-class neighbourhoods as they are more likely to generate the greatest amount of edible refuse for their animals and hold recyclable matter. Collecting refuse,

however, is no easy business. The waste is all mixed up together and needs sorting, and collecting requires stopping and starting in front of every home or building, loading up refuse and driving it back up through the busy city to Mokattam - a tortuous slow journey that is even longer for the poorest families who still use donkey carts to transport the waste matter (even if this practice is now illegal). The carts and trucks swing through the congested and polluted streets, sometimes holding up traffic, often receiving frustrated glares from passing drivers and pedestrians, glares that isolate the *zabbaleen* even further in their world. What most inhabitants of Cairo don't realize, however, is that the city couldn't survive without them. It is estimated that about 30 per cent of Cairo's garbage is not collected formally and that the *zabbaleen*, the informal sector, currently handle one-third of the garbage of 14 million people at no cost to



the city authorities. Specifically this means that the *zabbaleen* collect up to 3,000 tons of garbage every day and up to 85 per cent of that waste is recycled by them directly.

Today about 20,000 people live in Mokattam (the settlement having grown from a population of 8,000 in the early 1980s) and almost all of them live off, or are involved in, garbage activities. Far from being a disorganized scavenger practice, the *zabbaleen* system is based on years and years of waste management experience. It may be informal in character, but it is certainly efficient and professional, and this because the *zabbaleen* actually depend on the amount of waste they manage to collect and recycle to survive.

Difficult conditions

It is not difficult to imagine the problems affecting the *zabbaleen* living in the garbage villages of Cairo (Mokattam is the most famous and biggest but they are four such settlements around the capital city). As well as a severe shortage of services, such as electricity and water, health conditions are often deplorable, especially for the most deprived families. The squalid tasks of garbage collection and sorting, for example, expose the *zabbaleen* to critical health hazards. Risks are high - chemical substances can come into contact with their hands, jagged edges and glass can cause injury and disease, fumes are often breathed in, resulting in allergies and lung disorders.

On an educational level, most *zabbaleen* children have not had access to formal schooling. Schools, until relatively recently, were not a feature of the garbage settlements and children generally work from an early age with their parents, either sorting waste in the home or accompanying the men on the collection routes. In 1997, it was estimated that of the youngsters, aged 12 to 14, 66 per cent of boys and 59 per cent of girls were working.

If the children have generally not had access to educational opportunities, this is even more the case

with the parents who have rarely spent time in any formal system of schooling or even been through a non-formal literacy programme. Many *zabbaleen* above a certain age are illiterate. The *zabbaleen*'s income is still one of the lowest in Cairo - a city which is already grappling with dire problems of poverty and unemployment.

Outsiders venture in

During the years when the *zabbaleen* were being resettled and shifted around the outskirts of Cairo, any organized form of intervention to improve living conditions was difficult to imagine. Once the legal situation of the Mokattam community had stabilized however, many changes began to take place.

The first actors to operate in Mokattam were a consulting firm, Environmental Quality International (EQI) and a community-based organization called the Association of Garbage Collectors for Community





Development (AGCCD) or Al Game'ya. Over the years EQI created linkages and coordinated with a variety of organizations and key people who had begun to take an interest in the distressing plight of Mokattam's *zabbaleen*. To name but a few: the Ford Foundation, OXFAM, the European Community, the Coptic Church, Sœur Emanuelle, The World Bank, El Gabarty Services and the Catholic Relief Services.

EQI and the Al Game'ya began their work in Mokattam by creating an Area Up-grading Programme, which established a clear and organized plan of the neighbourhood and its activities. Any development designing seemed vain without this basic tool to understand the neighbourhood and its potential. Therefore, between 1981 and 1982, the settlement was mapped out and an in-depth survey of the various facets of the area carried out. Streets were given the names of families from Mokattam. Partners from within the community were identified.

When the experts from EQI visited Mokattam for the first time, they were amazed by the wealth of

knowledge they found there. Expecting to find nothing but poverty, they realized that the *zabbaleen* had, over the years, drawn on the Egyptian system of waste recovery and developed a know-how that covered a whole range of technical skills which spread their trade all the way from Mokattam to Alexandria and back - basically anywhere recyclable material could be found. This industriousness and experience, EQI believed, had to be built on. And so targeted actions and community groups were created for activities such as converting the *zabbaleen* from donkey carts to trucks, setting up a veterinary centre and building a road extension. Slowly EQI became known to the Mokattam community and people came forward with plans for improving the general situation of the settlement. One such plan was to set up a composting plant that would process organic waste. This plant would, EQI realized, require a specific organization to run it. Accordingly, the Association for the Protection of the Environment (A.P.E.) was set up. Over the years, EQI slowly decreased much of its activity to give way to A.P.E.





An association with Mokattam

Officially registered with the Ministry of Social Affairs as a non-governmental organization in 1984, A.P.E.'s original mandate was to manage the first composting plant at Mokattam and use the income generated from the plant to implement connected development activities. Structured around a board of nine volunteer members, identified for their specific expertise in areas such as health, education, environment, social development and micro-finance, A.P.E. is a secular, non-political organization made up of both Christians and Muslims. Today A.P.E. has a staff of over 50 people, most of whom are garbage collectors, and about 40 volunteers who perform duties in the fields of financial management, agriculture, designing projects, health care, sewing techniques, paper recycling, rug weaving and patchwork, construction and marketing. Networks of volunteers also stretch abroad with people working for A.P.E., in the marketing of their products, in places as far away as the United States.

In its mission statement, A.P.E. explains that: "It designs strategies to improve solid waste management practices in Egypt as well as transfer its technology to other parts of the world. It builds upon, and upgrades, the technical expertise of the formal and informal sector garbage collectors, while improving their professional, educational and health standards." This mandate translates into a series of more specific targets for the *zabbaleen*: to increase the ability to earn income; to strengthen the ability to face life's crises; to improve decision-making processes; to provide literacy in all its senses; to lower infant mortality; to provide nutrition in the home; to improve vaccination coverage of mothers

and small children; to nurture a greater propensity to educate daughters; to spread better reproductive health for women; to encourage smaller family size; to lower the incidence of female circumcision and early marriage.

On a wider scale, A.P.E. hopes to sow the seeds of change beyond the garbage communities by engaging in environmental research into the ways and means of improving garbage collection, recycling and the disposal of waste. This means networking with other organizations with similar concerns and connecting with international bodies tackling environmental problems and human development.

In the first years, the money generated from the Organic Compost Unit allowed A.P.E. to initiate its community development. The Organic Compost Unit had enormous potential for growth. The plant processes animal waste and organic matter into a rich compost that is ideal for agriculture and land reclaiming in desert regions. Since the building of the plant, new techniques have been constantly used to improve the quality of the compost produced. Today, it is considered one of the best-quality composts in Egypt.

With the running of the Organic Compost plant, A.P.E. got itself off the ground. The A.P.E. board, however, found itself challenged almost daily, even if, thanks to its wide network of board members and specialists, in and outside the *zabbaleen* community, it managed to overcome the first few obstacles that arose. Key technical and legal matters had to be answered. How to deal with the technological issues of the plant, such as breakdown, knowing that few experts were available in Egypt? Should the plant be a



developmental or commercial enterprise? How were the initial costs of the plant to be shared out? To what extent should outside donors be solicited? How to move from the running of the plant to broader human development programmes? Which families should be worked with so as to achieve a balance between the prominent key leaders and the mass of poor? Should income-generation programmes solely concentrate on recycling and waste management? How to involve vulnerable groups, such as children and women, whilst respecting the community traditions? What form of basic education was relevant to the *zabbaleen*?



In response to all these questions, the board members at A.P.E. saw that they had to forge their own path and dig deeper to tackle the root issues of poverty affecting the settlement. They could, of course, facilitate the *zabbaleen* in improving their professional activities but for any long-term transformation to happen, a change in mentalities and community organization needed to occur. A whole range of social, health and educational programmes were therefore developed. Today, they have become the innovative force behind A.P.E.



Structure and method

As well as its board of members, A.P.E. is now made up of a series of active units. Each feeds into the other, without hierarchy. All the units are supervised by the A.P.E. headquarters in Mokattam, situated on the edge of the Organic Compost Plant. As the plant is the central point of *zabbaleen* activities, (most collectors dump their organic matter there) people can easily pop into the A.P.E. centre or chat with staff on a regular basis. The A.P.E. headquarters is also the main training point. It offers general information for the public on recycling (visitors can go on walks through the recycling micro-enterprises of the neighbourhood), practical training in solid waste management, training on paper and cloth recycling technologies, literacy instruction, primary health care and, even, computer literacy classes. These different components are spread out into units or programmes. Following is a brief description of each.

Children's Club

This was inaugurated in 1993. It gives young children of the neighbourhood, aged 4 to 6, a chance to get away from the pressure of the garbage environment and provides them with a few hours in the day to learn pre-school skills. Field trips and games, outside the settlement, are also used to impart vital information on issues such as nutrition and hygiene. There are also literacy classes for older children. These tie in with the activities being given in the Rag Recycling and the Paper Recycling units. Whenever possible, links are created with the national formal school system, so that children can join the latter if there is a possibility for them to pursue their basic education.

Day Care and Nursery Unit

Different from the Children's Club in that it doesn't teach literacy, this unit provides a clean and safe

haven for working mothers and their young children. It offers learning activities for toddlers and an opportunity for them to have a balanced daily meal. Basic hygiene check-ups are also made, especially for pregnant women at risk from tetanus. A specific health information scheme allows people to find out where the nearest health outlet is when help is not available within the community.

At-Source Separation of Solid Waste

Teams of young *zabbaleen* participate in this aspect of A.P.E. It involves implementing at-source separation of garbage into organic and non-organic matter at household and municipal level. Such separation of waste within the home or workplace greatly facilitates the *zabbaleen's* task and means more matter can be recycled and a better-refined organic compost obtained.

Rag Recycling Unit

Started in 1988, this unit is seen as A.P.E.'s "learning and earning" project. It allows deprived girls and women to acquire a marketable skill and obtain credit whilst doing so. The products of the unit - rugs, aprons, bedcovers, etc. - are now widely marketed, in and outside Egypt. Two skills are imparted: weaving with a loom and patchwork.

Paper Recycling Unit

Started in 1994, this programme is again an income-generation scheme to help young women and girls gain financial independence and learn various life and practical skills. Products are generally handmade recycled paper and paper artworks. This recycled paper is now being ordered by major corporations for their greeting and business cards and by international hotels to print their menus. An embroidery section is



attached to the unit where girls and women learn to embroider fine patterns of fabric into paper, creating artistic scenes.

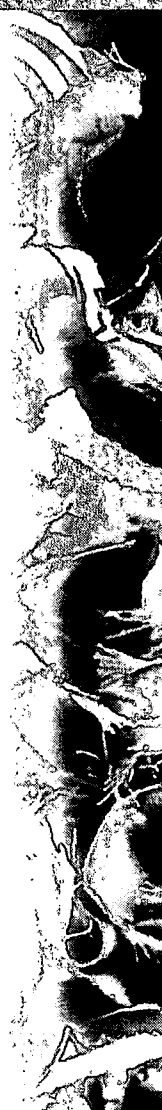
Crisis Management Committee

In 1991, staff members at A.P.E. realized that many people living in situations of immense poverty needed concrete support to cope with life's crises - sickness, debt, death of a family member, housing, etc. A group called the Crisis Management Committee was, therefore, created. It meets at times of particular crisis and regularly, twice a month, on dates scheduled in advance. Meetings are a chance for committee members to debate on aspects of their work and examine particular cases of people in need. Because of limited funds, priorities have to be set and clear choices made about whom to assist. Although A.P.E.'s underpinning goal is to facilitate autonomy in people, certain situations require immediate action from the outside. People such as widows, or children suffering from disabilities or long-term diseases, receive particular attention. Deserving cases can be assisted in obtaining retirement funds, free medication cards, admission to hospital, funds to build a decent home, etc. The committee also keeps

an eye on so-called "problem families" and identifies those at risk, such as families headed by widows or those with many young children. A further Crisis Management Committee has been set up in another garbage neighbourhood, Tora, and strong links tie the two committees together.

Primary Health Care Visitors

This not the sole domain of A.P.E.. The health programme is basically run by AGCCD. A.P.E., however, participates in the training of primary health care visitors. Often the latter are also learners or staff from the Rag Recycling Unit. Linkages can, therefore, be made and health components, inside development programmes, built up. Since its inception, A.P.E. has always been involved in health issues, particularly vaccination campaigns in Mokattam. These have managed to reduce mortality rates linked to tetanus and improve the health of infants and pregnant women. Primary Health Care Visitors carry out house visits. The continual interaction between health visitors and *zabbaleen* homes means diseases can be monitored and their spread prevented. Vaccinations by the AGCCD veterinary centre are carried out on animals.





A.P.E. Philosophy

- 1.** The first and foremost of the project's tenets is that the impoverished, marginalized and illiterate are not devoid of knowledge or skills. They are fountains of know-how and wisdom and make decisions based on a precise understanding and evaluation of their needs. Ownership of a project, therefore, can only be obtained if the community make their own decisions and are held accountable to them.
- 2.** Basic formal education is ill-adapted to the demands of the developing world and particularly those of deprived communities within that world. Non-formal basic education (literacy, numeracy) combined with income-generation, relevant health and hygiene skills and a flexible process integrated within everyday life are the key to empowerment and lifelong learning within poor communities.
- 3.** Hurried and rushed development is unsustainable and detrimental to communities. People have to be allowed the time to take on a pace and strategy of change that is acceptable to them and their beliefs, and in accordance with the dynamics and behaviour of their group. This implies a freedom from an external funding source or creating a mutual understanding between donors/supporters and project that respects the community's pace of development.
- 4.** Working for women's empowerment is a complex issue. Married women do not accept change as readily as adolescents (sensitive issues such as early childbearing or marriage are obviously easier to tackle at a young age). Married women also often have to mind children and ageing members of the family as well as carry out household chores. Working with them often requires adapting the learning and empowering process to the home or their immediate environment (again non-formal education, practical home skills, etc.).

Mokaitam Hills

Handmade recycled papaer

5. Regardless of how deprived a community is, it usually possesses resources that can be used to launch a small project. Furthermore, a country, no matter how poor, generally has an elite or class of people rich enough to fund a project.

6. Local and basic appropriate technologies work best in situations of poverty and in deprived communities. They can be grafted onto the existing level of knowledge and be built up gradually into a sustained acquisition of higher level technology (in other words, appropriate technologies cannot be imposed directly but must be integrated gently into existing structures).

7. Every culture has its own way of perceiving itself, its own character and its own method of managing its values in relation to that very perception. If projects are designed with this in mind, they fare better and stand a greater chance of success. Similarly the actual concept of "sustainability" should be defined within each context and culture.

8. The empowerment of a deprived community needs to enlighten people as to the value, within their own culture, of their new-found empowerment. In Mokattam this meant that autonomy evolved, amongst other things, from the meaning the women gave to the vocabulary of hope they developed in the rug-weaving and patchwork project. The words of hope they identified became the core of their literacy and numeracy curriculum. Generally societies are mobilized by common goals and visions based on positive projections of themselves in the future.

To appreciate A.P.E.'s method of action and see how each element of its mandate fits together, it is vital to understand the key attitudes and philosophies that structure its thinking.

These reveal A.P.E.'s development ideas concerning replicability and work with marginalized groups.



"Our way of learning"

It was clear from the beginning that if A.P.E. wanted to integrate basic education into the *zabbaleen* community, then learning would have to take the shape of non-formal education. Formal education was a world the *zabbaleen* didn't know. School as a structure, as a culture and as a way of learning was completely alien to them. Furthermore, it was extremely difficult to envisage *zabbaleen* children attending programmes in the conventional sense of the term, even less so adolescents or adults engaged in informal employment within the garbage village. The very nature of the lifestyle within Mokattam, and its activities, necessitated an adaptable and supple way of learning - in other words no formalized or scheduled learning or earning. The learning also had to be connected to the general work and survival dynamics of the neighbourhood which are based on informal or popular business schemes and self-run workshops.

It is A.P.E.'s firm belief that illiterate communities cannot break out of their poverty and cycle of oppression unless they become literate. However, rather than employing literacy as the starting point, A.P.E. prefers to design hands-on projects that carry within them a desire for literacy. Taking a different angle from the method Paolo Freire used in Brazil, which focused on the sources of oppression amongst the poor as an entry point for literacy, the Mokattam facilitators chose to focus on the sources of hope within the settlement. This signified that when designing curricula and delivering education, words of hope, and involving hope, were used at all times. By "hope", is meant feelings of pride, production, joy and other positive emotions. For example, words revolving around recycling production, learners' names and community history became the main vocabulary used in the learning process.

Despite learning being a group activity, instruction at A.P.E. is always individualized, and acquisition of knowledge kept at each learner's pace. Learners' achievements are not compared one to the other and grading is not used as a method of motivation. Rather than evaluate each learner's progress on the strict criteria of literacy, A.P.E. chooses to chart changes in attitudes such as independent thinking, the ability to express and formulate an opinion, inventiveness, autonomy and initiative. Ages are mixed, as are practical skills and education. Weaving comes with literacy, patchwork quilting with numeracy.

A.P.E. believes that there are many forms of literacy. To confine it to the written word alone is limiting, and ultimately marginalizing, for excluded communities who are looked down upon precisely because they are illiterate in the written word, even if they are more literate than many people in other ways (knowledge of the environment, animal breeding, informal economy). The kind of literacy that is fostered therefore goes beyond conventional forms. As the volunteer board member who designed the Rag Recycling project says, "what is needed is not just a literacy to read the "word" but an enabling literacy to read the "world".

As well as fostering literacy in reading and writing, A.P.E. transforms everyday situations into opportunities that allow the individual to empower himself or herself. Learning situations can be created out of almost any event, for example social and cultural occasions, to increase problem-solving or decision-making. The Rag Recycling Unit in Mokattam is a typical example of A.P.E.'s approach. Begun in 1988, the basic idea with this programme was to provide an income-generation and poverty alleviation scheme for women and adolescent girls involved in garbage activities. To create a sustainable

20

16



base for this programme and allow it to break the cycle of poverty, non-formal education was introduced around income-generating activities - rug weaving and patchwork sewing. This strategic decision was based on the realization that making money had proved, in many similar development projects, to be the most efficient way of creating change. It was faster and more appealing than health awareness or literacy. The very dire context of poverty and deprivation signified that any programme had to have an immediate effect on people's lives. Economic empowerment was that immediate result. Furthermore, the *zabbaleen* already had recycling expertise. It was already their way of overcoming poverty and exclusion. It was onto this existing power and skill that the programme was built. The result is that the programme has now become self-sustaining and is well-established in the minds and economic realities of Mokattam's women and girls, who are able to have a different outlook on life that goes beyond the endless sorting of sordid garbage.

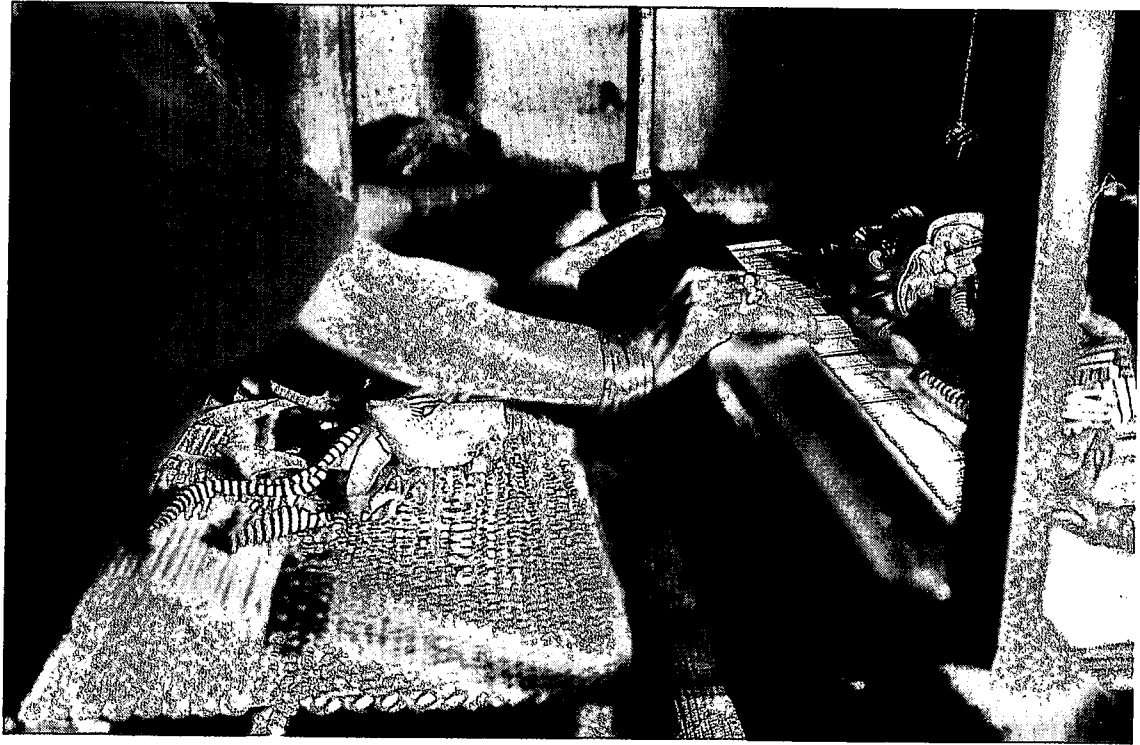
The learning in the Rag Recycling Unit is layered. That is to say that it is based on weaving and

patchwork but imparts various levels of skills: literacy, recycling, health awareness, marketing and accounting. Each aspect of the learning is linked to the other as a whole. Using A.P.E.'s literacy of hope, rags become words and words become rags woven into a curriculum.

The Rag Recycling Unit works on donations from Egyptian textile companies or garment industries. After much campaigning, several giant textile concerns agreed to donate their scrap rags (cuttings, old pieces of material and discarded cloth) to A.P.E. The rags are an unconditional donation and the textile industrialists do not expect anything in return. The *zabbaleen*, however, have to pick them up from the factories themselves. The sustainability of the programme, from a supply point of view, is therefore ensured.

To kick off the learning process, the first task of the young women in the Rag Recycling programme is to sort the rags by color, size and texture, as they are collected all jumbled up together in massive bundles. Learners are asked to make sure that they can fit the cuttings onto spools and insert them into wooden





shuttles, hence mastering notions of space and precision. The manipulation of scissors to cut the rags down to size becomes a preparatory exercise for the use of pencils and pens in literacy classes. Tying and counting the fringes at the end of the rag rugs and using a measuring tape become the starting point for numeracy. As the training advances, more and more complex shapes and styles are introduced. These can be anything from designing a bathroom rug, to be placed around a basin stand, or incorporating elaborate patterns and designs into the rugs. At the end of the programme, these designs incorporate actual words and letters and not just shapes and colours. After each day's training, rags are stored away in baskets or bags and the workshop cleared of dust and sweepings. This task serves to introduce methods of discipline in work, organization and hygiene. Furthermore, weaving a clean rug, which is professionally acceptable for the outside market, requires showing up on time, in clean clothes, with clean feet and hands. This emphasis on cleanliness is

a mandatory condition for entry onto the programme. Such measures might appear a little harsh to some but A.P.E. believes it is very important to create a mental and physical harbour of cleanliness and relief for the young women. When they enter the A.P.E. centre they have to cross into another world which breaks with their oppressive daily garbage sorting. And when they leave, they should feel capable of acting positively on that very oppression.

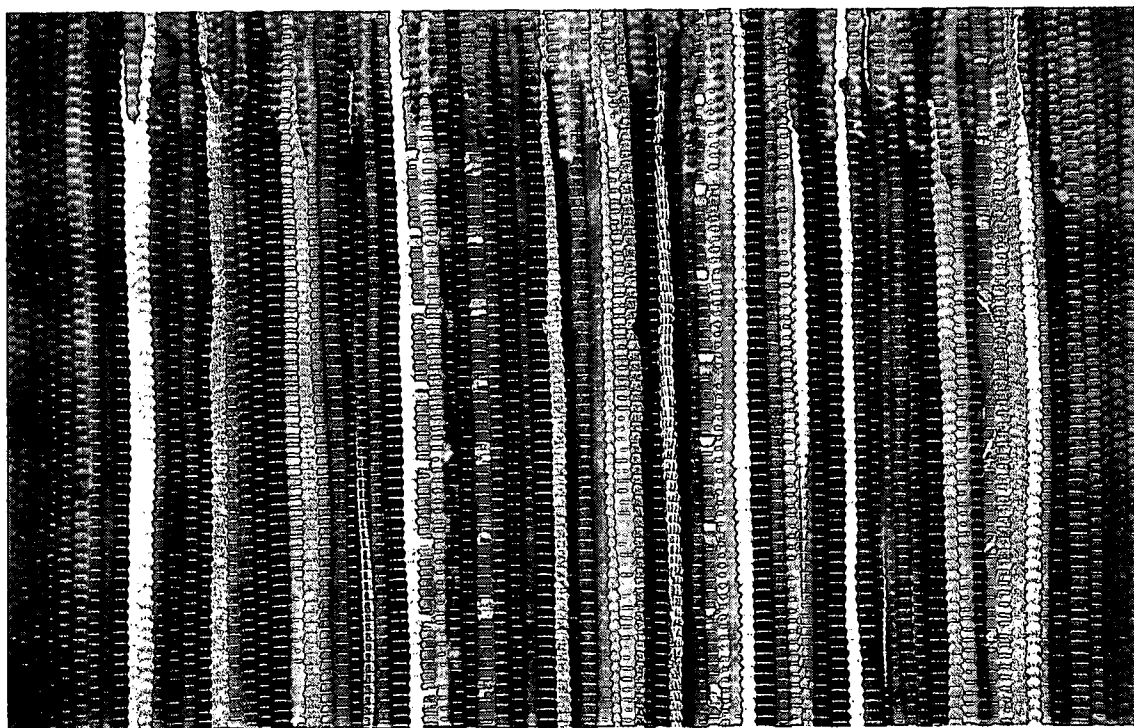
When the learners come to the end of their training, they take home with them their "graduating" prize - a basket to keep their rags, a cloth bag to carry their products, a measuring tape and a pair of scissors. Much more than mere tools for work, these are tools for empowerment. Suddenly their world has changed. They have a choice other than garbage sorting. As one A.P.E. board member put it "with their eyes focused on a heap of rotting food for a good few hours each day, their world view was one that needed an infusion of colour, cleanliness and hope."

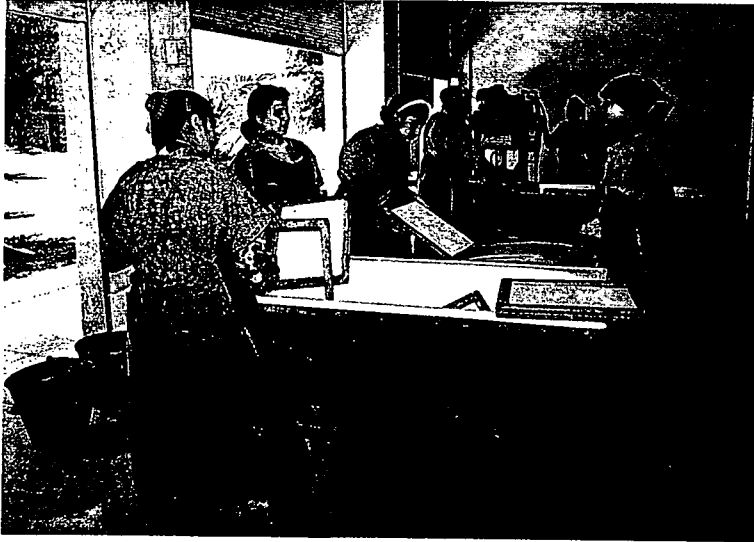
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Training in the Rag Recycling Unit lasts anything from three months to six months. The initial group of recruits for the first scheme were already literate when they enrolled, but as the programme got going, a second group of more marginalized girls were purposely selected. The recruitment process for A.P.E. was simple: it involved walking up and down the alleyways and roads of Mokattam and talking to any adolescent girl found squatting on her haunches sorting garbage manually (the fact that they were sorting refuse in this way denoted an extreme situation of deprivation). A.P.E. asked a series of questions to the girls and their family. These questions revolved around their lives, the kind of garbage recycling they were involved in, their level of literacy, their income possibilities. Certain priority cases shone through immediately, such as the girls who go out into the city to collect garbage on their own. Too deprived to be accompanied by a truck or to have a designated route, these girls were breaking the unwritten rules regarding women venturing out of the community unaccompanied. The fact that they could

spend their days alone, with a big bag, searching bins and scavenging along the roadsides for recyclable matter, meant that they really needed to be reached by A.P.E.'s income-generating schemes.

The majority of *zabbaleen* girls accompany their fathers on the garbage route as children and, when they reach puberty, they devote their time to sorting garbage back in the neighbourhood. They, therefore, almost totally miss out on school or any form of organized learning activity. To convince parents of the importance of the A.P.E. programmes, and obtain some respite for the women and girls from the burden of their garbage tasks, the A.P.E. staff have to carefully explain the Rag Recycling Unit and other units to the girls and their parents, or to the nervous husbands. They calm the mothers', fathers' or husbands' fears that their daughters or young wives might be in the company of men if they go to the A.P.E. centre (the Upper Egyptian code of honour is particularly strict on this point). They discuss the monthly wage for the girls which is proposed as





the results are visible for all to see. There is even a waiting list. The A.P.E. staff are still very careful though to make sure the most needy amongst the needy get to participate first.

What really rooted the learning from the Rag Recycling programme firmly in Mokattam however, was a simple loan scheme. The girls and women, who have completed the programme (and received their "graduating prizes" of work tools) come to the A.P.E. centre on Mondays and Tuesdays and

compensation for the work missed and as an incentive (the equivalent of about US\$12 a month). Today, the ways of recruiting have diversified (A.P.E. has a good idea of which families are the most needy) but, much more importantly, the success of the Rag Recycling and Paper Recycling programmes has generated a huge surge in interest in the neighbourhood.

Once the girls and women have agreed to attend, they have to promise to be present four hours a day, and six days a week, for their training. The learners have the choice of attending in the morning or the afternoon, according to their garbage sorting shift when the family truck or cart returns from Cairo with its daily load of waste.

Over the years, the Rag Recycling and Paper Recycling Units have become a firmly-entrenched feature of Mokattam, accepted and respected by all. There is no real need nowadays to convince families of the importance of the projects, as

pick up their rag allowance (the session on Mondays is lengthened with small parties and socio-dramas about problems affecting the neighbourhood). They then take the rags to their homes where they can either sew products thanks to a machine or weave rugs with a loom. Both the loom and the machine can be bought with a loan given by A.P.E. The loan is paid back with the profits from the products made. On Fridays the women, who work in their homes, bring their finished products to the A.P.E. centre where they go through a strict quality control. At the



end of each month, each producer is given the money derived from the sale of the products. At the beginning of the project, the advisors and quality controllers were all volunteers from the private sector (such as experts in the fields of textile design or marketing). Now, however, the trained women of Mokattam are the quality controllers and advisors for the newcomers. Thanks to them the A.P.E. products have become highly finished professional material. The literacy and numeracy element returns to the fore again at the moment of marketing as only those learners who are able to master reading and calculating can really participate in the sales events in Cairo. Someone who cannot read the price lists, for example, doesn't stand much chance of selling their products well. Labelling products, pricing them and finding the most advantageous commercial outlets in the big tourist hotels of the city, depends on a solid literacy and numeracy base. The need, and hence the incentive, to learn to read, count and write is never far away.

The introduction of the looms and sewing machines into the rag recycling scheme didn't just mean women were sent off home with their tools once their training had come to an end. It meant that the symbiotic relationship between A.P.E. and the learners was able to develop further. As looms entered the homes of the girls and women, so these very homes became satellites of change spread out in the community. Lifelong learning became a practical reality in the home around the loom. Learners could combine their everyday garbage tasks with their more precise learning and income-generating activity. This, in turn, encouraged their literacy. The *zabbaleen* therefore control the whole learning and earning process from start to finish and within the requirements of professional standards. The recycling units at A.P.E. are not just an initiative to earn money on the side, as a kind of charity business. They are small home businesses with cash flows and with market demands for their products. As Yousriya Loza-Sawiris, President of A.P.E., is fond of saying, A.P.E. is run "along the lines of a highly competitive enterprise. Isn't that what sustainable development is all about?"

When the former learners pick up their rags at the A.P.E. centre, it is a chance for staff to listen to problems affecting the girls and women, discuss new designs for the products or see what outside customers might want. With this dialogue, staff are able to evaluate if literacy and the messages on environmental and personal health have been maintained outside the learning centre and in the home. Six years into the Rag Recycling programme, results show that the seeds of positive change have, indeed, been planted in the Mokattam community. Of the estimated 700 homes or extended families in the neighbourhood, about 500 have been reached by the programme:

- 250 young women continue to be regular producers, earning anything from 80 LE to LE 350 (from 23.50 US\$ to 103 US\$) per month. This income (often the only family income if the husbands or fathers are sick), the women reported, was being used on extra food for children, clothing for special occasions, healthcare, education and household appliances;
- 56 per cent of the women who were mothers said that they would not circumcise their daughters;
- 64 per cent of the married women said that they practised family planning;
- 250 young women and girls can be said to be completely literate, many others are gradually reaching this point;
- expertise gathered from this experiment has been transferred as far afield as Tunisia, Morocco and Senegal - a south-south dialogue begun.

It is something of a feat to imagine that the *zabbaleen* actually managed to turn insignificant scraps of discarded cloth into a whole process of learning, earning and empowerment. Yet that is exactly what happened!



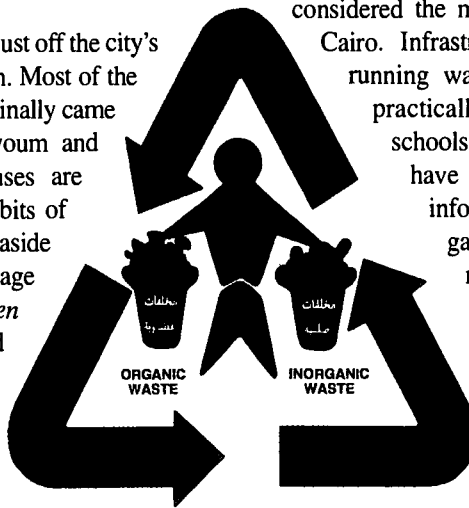
Mokattam spreads the word to Tora

The Tora neighbourhood, a few kilometres away from Mokattam, is the third largest and the poorest "garbage village" of Cairo. It has a population of approximately 1,780 people (about 248 families, 51,2 per cent Christian, 48,8 per cent Muslim, 71 per cent illiterate, 30 per cent aged between 13 to 25). Nearly all the inhabitants of the neighbourhood work in garbage collection, recovery and recycling, and more than two-thirds still sort the garbage they collect within their own homes.

Tora lies south-east of Cairo, just off the city's ring road, on a rocky dry terrain. Most of the inhabitants or their families originally came from the governorates of Fayoum and Assiut. The majority of houses are patched together with tin, old bits of wood and brick with areas set aside for animal breeding and garbage sorting. The Tora *zabbaleen* service the houses, hotels and hospitals of nearby areas such as Maadi, Dar-el-Salam, Basateen, Manial and Helwan. Tora is viewed as an eyesore by the local municipal authorities and the inhabitants have often been threatened with eviction because of plans for a new ring road around Cairo and the development of new housing estates in the area. Recently, however, under the aegis of A.P.E., several influential people have been able to persuade the government to legalize the situation of the Tora settlement. This means that the people who live there - many of whom have been there

for up to twenty years - will no longer be evicted. In agreement with the municipal authorities though, garbage activities are to be shifted from Tora to a specially designated area several kilometres along the Kattameya Desert road.

With this upgrading process underway and the legal position of the Tora *zabbaleen* now guaranteed, A.P.E. has begun to tackle some of the very pressing problems affecting the neighbourhood. Tora is considered the most deprived *zabbaleen* area in Cairo. Infrastructures and services, such as running water, electricity and sewage are practically non-existent. There are no schools either. The narrow streets which have sprung up haphazardly in this informal settlement are choked with garbage and represent a real health risk. A.P.E. would like to ensure that every family eventually has a brick house rather than the shacks that they currently inhabit. A clinic has recently been built, even if funds are still insufficient to meet running expenses. For the time being, the clinic deals with everyday problems, of which there are many. A large number of children, for example, suffer from chest diseases, skin diseases and intestinal parasites and there is a particularly high incidence of diarrhoea amongst the youngest children who are often not vaccinated against many illnesses. Such ailments as asthmatic bronchitis, fungal chest diseases and allergies are directly caused by the





proximity to polluting matter and are exacerbated by sorting garbage manually. Recently it was estimated that tetanus was the most common cause of mortality, especially amongst children who often run barefoot around the garbage. Some 20 per cent of families were found to suffer from diarrhoea, 10 per cent from kidney failure, 20 per cent from fly-related viruses and other parasites, and 20 per cent from asthma. Female circumcision and early marriage are also fairly widespread in the Tora community. As for the animals raised in the pens adjoining the houses, they also suffer regularly from a variety of diseases and often succumb to epidemics. Sterilization and management programmes for the animal pens are needed. The Ford Foundation, working alongside A.P.E., has also been active in the neighbourhood in developing more efficient forms of garbage collection and management.

To begin its action in Tora, A.P.E. first obtained the approval of Cairo's Cleanliness and Beautification

Authority to undertake the upgrading of three streets in the neighbourhood. These, A.P.E. believed, could then serve as a model for the rest. A committee for Tora was also formed and its opening act was to draw up a clear plan of the area with schemes to widen and improve the alleyways into streets and add at least two green areas by planting trees. Door-to-door visiting then served to build trust between the inhabitants and the new A.P.E. team. It enabled the organization to see how the people of Tora envisaged changing their neighbourhood and what aspirations they held for their area. The home visits were also an occasion to evaluate the health, economic and educational situation of each family. By the end of the exercise, all streets and alleyways were numbered and named and the amount of animal pens counted. Recently a machine production-training centre has been established in Tora. Still in its early days, it hopes to provide marginalized youth with good training in recycling techniques and machine production. A school, credit programmes to allow the



Tora *zabbaleen* to convert from their donkey-pulled carts to small pick-up trucks, rotating funds to start small businesses and literacy classes are all being planned by A.P.E.

Soon after A.P.E. initiated its work in Tora, UNESCO, and more precisely the Special Youth Project within its Education Sector, started to seek ways of creating a partnership with A.P.E. A.P.E.'s innovative work had interested UNESCO for many years and when the Special Youth Project was created within the United Nations agency, it seemed that a true opportunity for partnership had arisen. The Special Youth Project at UNESCO is responsible for identifying and promoting alternative basic education and income-generation schemes for the international community in its fight against youth marginalization. Its search for best practices and references for countries grappling with the issue of youth exclusion and deprivation meant that it was naturally drawn towards looking into the youth situation in Mokattam

and the solutions being developed there. After much discussion between UNESCO and A.P.E., it was decided that a partnership between the two organizations could grow around the transfer of technology that was already underway between Mokattam and Tora. This had begun to take the form of youth-to-youth training and needed strengthening. Furthermore, it was a field that UNESCO felt could be upheld as a best practice and a true example of sustainable and endogenous youth empowerment by youth within a context of poverty.

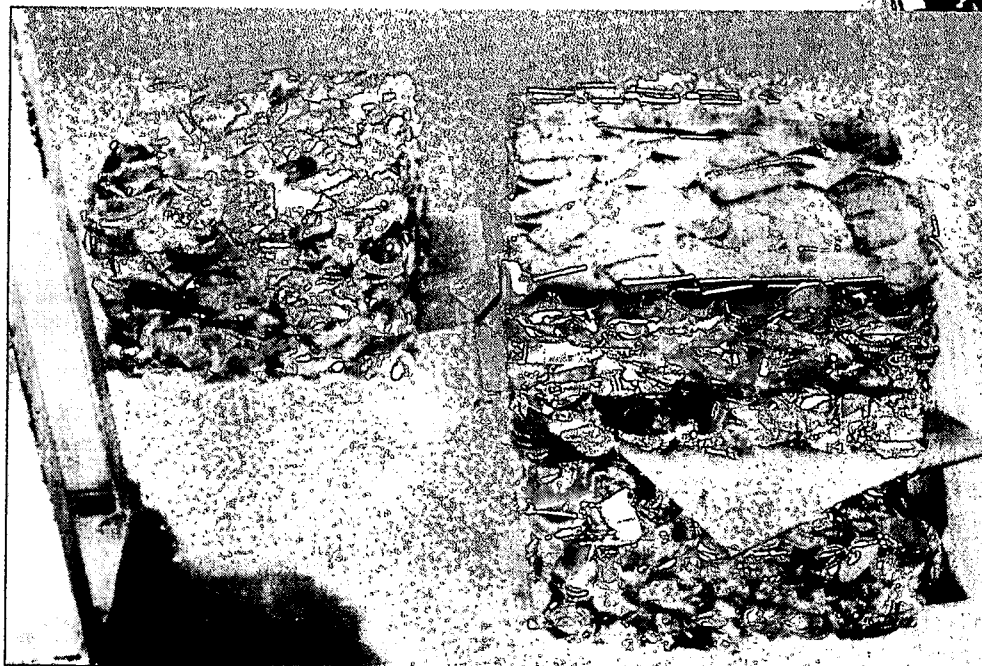
Accordingly, several youth teams of between six and ten people were created within Mokattam. They brought together young people who had been through A.P.E.'s literacy and income-generation schemes in Mokattam and who were keen to share their experience of how it had increased their garbage activities and knowledge. Their newly-acquired knowledge was already helping them in their daily economic activities and, both A.P.E. and UNESCO

believed, it could also be tapped for the benefit of others in similar situations - namely youth in Tora. Not only would the extremely deprived young people of Tora listen to their peers from Mokattam more attentively than they would formal teachers, who hadn't lived through similar experiences, but also the knowledge the Mokattam youth carried would necessarily be relevant to Tora, the gap between learner and teacher being extremely narrow. Once the programme was underway, this mirroring of experiences, in fact, turned out to be one of the true motivations for action. The Mokattam youth were, indeed, able to provide precise practical information for their peers in a language the learners knew and with an empathy that was not contrived. Moreover, for the Mokattam youth it was the first time their techniques and skills had been so valued, to the point where they had actually become teachers themselves.

Training centred around the operating of recycling machines and the general upgrading of the Tora slum. Literacy and numeracy skills were directly connected to these activities. Reading and counting emerged as a necessary means to understand machine instructions or to work out accounts for the setting up of a workshop. Participating in the upgrading of Tora conveyed different messages and required knowledge on efficient waste management, health and the environment, construction techniques, etc. The A.P.E. staff from Mokattam, most of them *zabbaleen* themselves, followed the process closely but without interfering or directing affairs too visibly.

Nearly two years after the inception of this experience, it can be said that the young people of Mokattam have turned out to be excellent trainers. Their knowledge and expertise are symbols of empowerment the Tora youth can't ignore and the partnership that has

been forged between the two neighbourhoods is now expanding. The linkages A.P.E. has created with other activities such as the Maadi Environmental Rangers have also given the young *zabbaleen* a voice they had not expected. Moreover, the fact that it is young *zabbaleen* from Mokattam who are directing activities in Tora changes the whole dynamics of the operation. The actors are inside people and cannot be said to be intervening from the outside. As Dr Marie Assad, a long-time A.P.E. board member, says, "the hope is to avoid the pitfalls of the very first Mokattam upgrading programme and to incorporate the interest and the participation of the poorest and most vulnerable groups from the outset."



A door- campaign in

Even in the affluent suburbs of Cairo, the refuse situation can be dramatic. In the Maadi neighbourhood, for example, the state of the streets is deteriorating with the increase in the amount of waste and pollution. Faced with this situation, the local residents asked the *zabbaleen* to help them. The *zabbaleen* regularly service the area of Maadi but little communication had been established between the inhabitants and the collectors. Contact led to A.P.E. being called in to formulate an organized response. A group called the Maadi Environmental Rangers was set up and Dr Ayman Moharram from A.P.E. was on hand to give advice to both residents and *zabbaleen*.

The Maadi Environmental Rangers were created following the model of two previous pilot Cairo neighbourhood campaigns in El Manial and Deir El Malak. For the Maadi clean-up campaign, twenty-six young people from Tora were trained by the youth who had taken part in the previous campaigns. This youth-to-youth training was again part of a wider building of local capacity in Tora. The Maadi Environmental Rangers divided their area into sections, listing houses, shops and restaurants. A work plan was set up for each section. This exercise obviously called upon the subjects the young people had learnt in their training and served to reinforce literacy and numeracy skills. The team then went from door to door in Maadi explaining to residents how the garbage collection

لأمة من المنازل بالمعادي

MAADI GARBAGE SEPARA

to-door Maadi district

system in the neighbourhood could improve if waste was separated at source and if a different way of disposing of refuse was envisaged. They described to house owners and tenants how at-source separation of waste would vastly contribute to environmental conservation and mean less risky work for the *zabbaleen*, particularly the women who do most of the sorting, often manually. To support their campaign the Maadi Rangers developed stickers and information leaflets with A.P.E. These were stuck onto garbage cans and trucks or distributed to inhabitants. They explain that waste should be separated into organic matter (left-over food, fruit peels, vegetable cuttings, etc.) and non-organic matter (plastic, paper, glass, food cans, etc.). This simple act, the young people of Tora demonstrated, has already proved successful in other areas. It reduces the amount of trash burned or buried under environmentally hazardous conditions and it cuts the levels of contamination caused by heavy metals. As the last line of the information leaflet says: "Help us create a healthy environment for a better life."

With this new environmental campaign, it can be said that the *zabbaleen* are definitely leaving their role of simple waste collectors behind to become active agents of change within the community and even within middle-class areas. They, a low-income and ignored section of society, possess a knowledge that no one else has.



مشروع الارتقاء بجمع القمامة

WASTE SEPARATION AT SOURCE PROJECT

To the Red Sea and South Sinai

Parallel to the transfer of technology from Mokattam to Tora, an innovative step was being taken by the *zabbaleen* in the Sinai region of Egypt thanks to the design and assistance of a consulting firm, Community and Institutional Development (CID), with financing from the National Social Fund for Development of Egypt. Over the last few years, tourist resorts and modern cities have mushroomed along the Red Sea at high cost to the environment. In Sharm El Sheikh alone the number of hotels has grown from 5 in 1989 to 45 in 1997 and the number of beds available from 1,030 to 23,800. The delicate ecosystem that took thousands of years to evolve in the Sinai is rapidly deteriorating. The coral reef and marine life in the Red Sea are choking on discarded matter such as plastic bags and polluting chemical substances are finding their way into the water. The mountains and deserts beyond the coastline are often being used as wild dumping grounds and many areas

of the once empty desert now rattle with the sound of plastic bags, bottles and tin cans being tossed around by the wind. So far the waste collection system in the area is very weak, at times limiting itself to the municipalities permitting dumping and burning in certain designated places or the local Bedouins allowing their herds (goats, sheep and camels) to scavenge off the refuse. Basically nothing sustainable and moreover full of health hazards for the Bedouins, several of whom are already in situations of poverty.

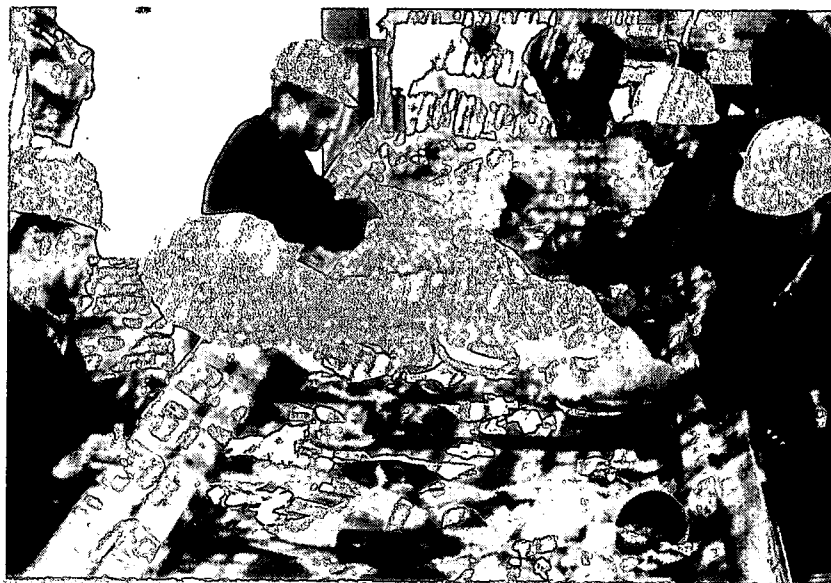
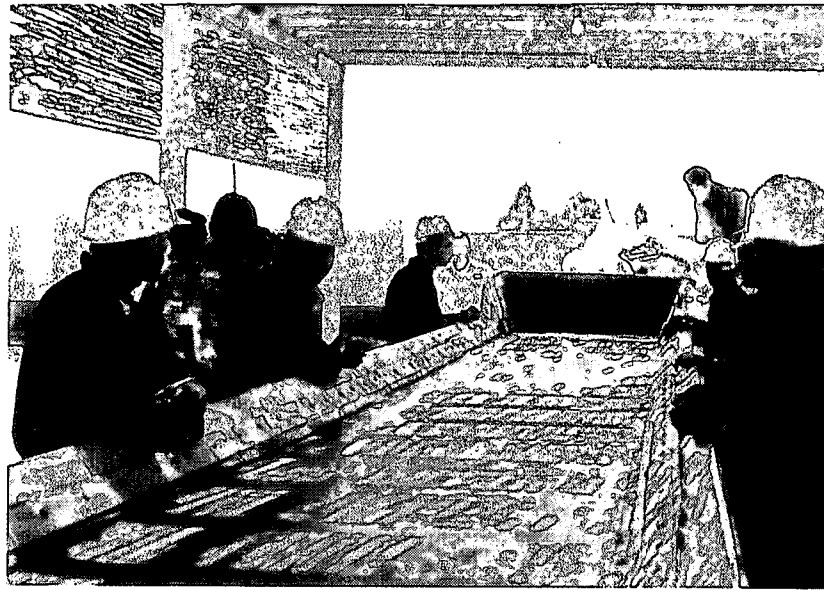
Whilst the growth of the cities along the Red Sea and in the Sinai seems inevitable, for economic reasons and because of new trends in tourism, the invasion of waste could be stopped before it's too late. The tourist hotels along the coast are intent on increasing their guest capacity over the next few years but it is not in their interest to actually destroy the natural habitat on which their trade depends.



There is no interest for the region either in just developing a form of tourism that solely benefits the Cairo elite and foreigners. It was this angle that CID took in its project with A.P.E., the *zabbaleen* of Mokattam and a local NGO, Hemaya. Three sites were chosen to implement a scheme, Nuweiba, Taba and Dahab, and a programme combining environmental awareness with waste collection and processing began.

To facilitate matters and create a base from which to operate in the region, an A.P.E. branch was set up in Dahab. From the very outset, it was designed to be self-financing and sustainable, independent from the A.P.E. headquarters in Mokattam. Five components were selected as primary activities to launch efficient waste management in the region: at-source separation, waste collection and transportation, creation of a transfer station, recycling and sanitary land-filling. As with the Tora experience, it was the young people of Mokattam who undertook the training of the local trainees. This hands-on training programme, designed by the consultant firm, CID, was also a chance to build up the local capacity of the partner NGO, Hemaya.

The Mokattam youths already had a good background in training and collective action as, further to the Tora project, many of them had been carrying out door-to-door environmental campaigns in Cairo for up to two years. Young Bedouins were particularly targeted as trainees as they, like the youth of Mokattam before them, had a precise knowledge of their habitat and could, by elaborating a waste management system in the area, be empowered both economically and educationally. Training was hands-on, installing and operating conveyor belts for separating refuse and providing advice on the properties and recycling potential of each type of waste (how to sort on a conveyor belt, how to process and compact different kinds of non-organic waste and then trade it). The workings of at-source separation of garbage were also explained to hotels, camping sites, cafés, restaurants, shops and residents. Beaches were cleaned and stickers distributed to all car owners in

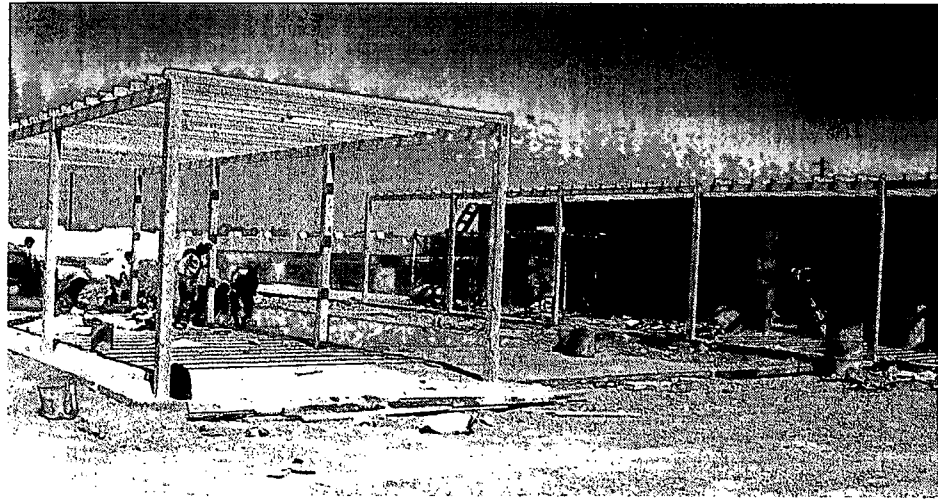


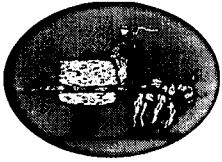


Dahab and Nuweiba. Journalists were mobilized and articles appeared in the leading national newspapers. On a policy level, municipalities and hotels were brought together in seminars and new guidelines were drawn up in collaboration with the Ministry of the Environment to develop a solid waste management strategy in the area and nationally. The Hilton hotel chain, in particular, was keen to use Mokattam expertise. In Sharm el Sheikh, Nuweiba, Taba and Hurghada, Hilton provided facilities to develop training and implement a new waste management system that would lead to garbage being sorted at the back of hotels. As Nikki Priestly, environmental officer for Hilton Hotels said, "something had to be done immediately!"

The guidelines developed with this scheme can hopefully be used to replicate the experience in other vulnerable spots in the Mediterranean, notably in the Middle East and North Africa. Moreover, the Sinai scheme shows that a response to modern-day waste and living patterns, which benefits the young and marginalized, is possible within the local informal economic system. And this without heavy intervention from the outside. Both CID and A.P.E. built their programme on the long-standing tradition of non-organic waste recycling that existed in the region. Indeed,

all over Egypt, people have always recovered what they could and bartered and recycled. It is on the strength of these traditions and know-how, A.P.E. believes, that town planning must now be conceived to prevent the excesses that the Sinai tourist development is generating. If Egypt is to grow further still as a destination for eco-tourism (diving, desert trekking, etc.), the *zabbaleen* have a strong role to play in advising municipalities and in implementing new models of waste management and even environmental behaviour. It goes without saying that these new growing sectors also bring with them new employment opportunities from which the poor, such as deprived Bedouins, can benefit directly.





Sorting through the past

It is clear to all those working at A.P.E. that western-style donor-driven development would not have worked at Mokattam or Tora. Few exterior donors would have been able to take on the gradual and variable implementation of programmes at the beginning, or even accept the fast-changing orientations of certain projects or aims to fit the desires and structures of the garbage neighbourhood. Just as there were unexpected obstacles, there were also unexpected results which had to be taken into consideration and which meant that a rigid design or concept could not be adhered to. Seemingly easy issues such as creating a learning centre, had to take into account the patterns of the neighbourhood and the strict traditional practices of the *zabbaleen* regarding relations between men and women and their attachment to the moral values of Upper Egypt. Years of trust were necessary too before tackling such taboo issues as female circumcision. Basically nothing could be hurried or pre-conceived if it were to be sustainable. Tackling taboos too early on would have made the whole project flounder.

A.P.E. believes that, from a structural point of view, it was able to withstand many shocks and problems because it is made up of volunteers with a wide range of expertise. Thanks to them, foreign consultants on short-term contracts did not need to be called in and pure donor-driven development was avoided. Volunteers are committed to working with A.P.E. and do so on a level equal to the *zabbaleen* who are the major part of the management structure. The boundaries between members from the outside and inside are thus blurred. This facilitates relations with community leaders and means that obstacles such as inner conflict and crisis can be overcome as a group for the good of the group. Many years and joint committees were necessary to create this balance however.

Time was also needed to reach the poorest of the poor. They had to be convinced that A.P.E. was going to improve their lot rapidly. They had no time to waste in meetings or preliminary group activities. Every moment of their day was about collecting and sorting garbage to survive. The importance, therefore, of A.P.E. not simply mirroring the structure of the community but actually integrating it to reach its lowest, often hidden, level was crucial.

Just as A.P.E. chose not to adopt a western-style approach to development, it also, to a certain extent, chose its own particular Egyptian style of sustainability. Income-generating projects and the Organic Compost Plant provide income for the good running of the project but A.P.E. has also called upon ancient practices such as tithing, whereby the rich give to the poor. This system is strongly at play in the Crisis Management Committee and in the providing of seed money for certain activities. It is wrong, in the present case, to see this as simple charity as it is a much more complex local reality and it ties in with A.P.E.'s idea that within almost all countries there is a section of people who can provide seed money for development and who should, in any case, be involved in the growth and evolution of their own countries. Such sources of funding are also preferable to outside donors who won't understand the pace of the project and who set conditions which are out of keeping with the community rules and traditions.

A.P.E. also uses privileged sections of society for its networks of influence. This means that in the case of the Mokattam and Tora projects, initiatives have been supported by local people who have provided contributions in-kind such as consulting, as well as financial assistance. More importantly, key personalities, throughout the country, have given their time or influence to facilitate the *zabbaleen's*



empowerment. The current president of A.P.E. for example, Mrs Yousriya Loza Sawiris, is a parliamentarian who has long fought as an advocate for the *zabbaleen*. It was thanks to her intervention with the Governor of Cairo's office in 1994 that the inhabitants of the Tora settlement were not evicted and development was able to get underway there.

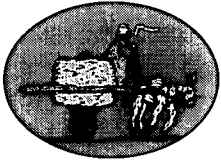
Whilst the replication of many A.P.E. innovations seem possible, some of the project's facets are so anchored in local culture and structure that their reproduction appears very difficult. The very specific nature of the *zabbaleen*'s lifestyle and background necessitates a highly individual approach. This is not to say that other projects and countries cannot learn from A.P.E.. On the contrary, countries as far apart as Jordan, Lebanon, Morocco and Tunisia have already benefited from a transfer of know-how from Mokattam. Recycling techniques, innovative methods of fostering literacy and numeracy, urban upgrading schemes, waste management projects, etc. are all highly exportable elements. But much more than programmes and schemes, what A.P.E. has to offer to the outside world is a philosophy of recognizing the knowledge of the deprived, nurturing development through that knowledge and employing each person's free choice and potential to implement change. The novelty of the A.P.E. approach comes in the way it ignites the knowledge and mechanisms inside the community to move towards development on its own.

A.P.E. started with waste management. That was the main activity at Mokattam. As an activity, it had many flaws, especially in matters of health, but it offered many entry points and reasons for hope too. By valuing the strength of the *zabbaleen*'s work and

knowledge, and concentrating on the possibilities of free choice that were available to improve the neighbourhood, A.P.E. managed to cultivate development programmes in partnership with the community. The notion of free choice was key. "In fact development", Laila Kamel Iskandar, a long-time board member of A.P.E., says, "can make no sense or achieve success unless it is fed by free choice." In the case of Mokattam and Tora, this free choice means that the programmes for improvement - whether they be in the field of learning, neighbourhood upgrading or health - are all natural extensions of everyday living and activities. The logic for carrying out the programmes is, therefore, obvious. The gap between development programme and day-to-day community activities is minimal. This can be seen in the Rag Recycling Unit and the youth-to-youth scheme in Tora, where learning is just another element of the activities at hand.



Literacy is introduced or reinforced as a very natural means for deciphering names or words on payrolls, sales records and product lists, numeracy is developed as a means for weighing quantities of recyclable material and personal hygiene is brought in as a necessary condition for making clean final products. Teamwork, mutual understanding, conflict resolution or the drawing up of common objectives also become natural consequences of working together. Again, this links in with the actual vocabulary used in the development programmes which is based on hope, but not on outside or artificial hope, rather a possible hope based on the *zabbaleen*'s aspirations, choice and vision.



The three E's: Environment, Employment, Education

For too long waste management issues have been considered as purely technological. It should come as no surprise to anyone who knows about the *zabbaleen* that this is far from the case. Waste issues are, in fact, at the heart of our societies, in both North and South, and they are directly linked to issues of human and sustainable development, basic education and economics.

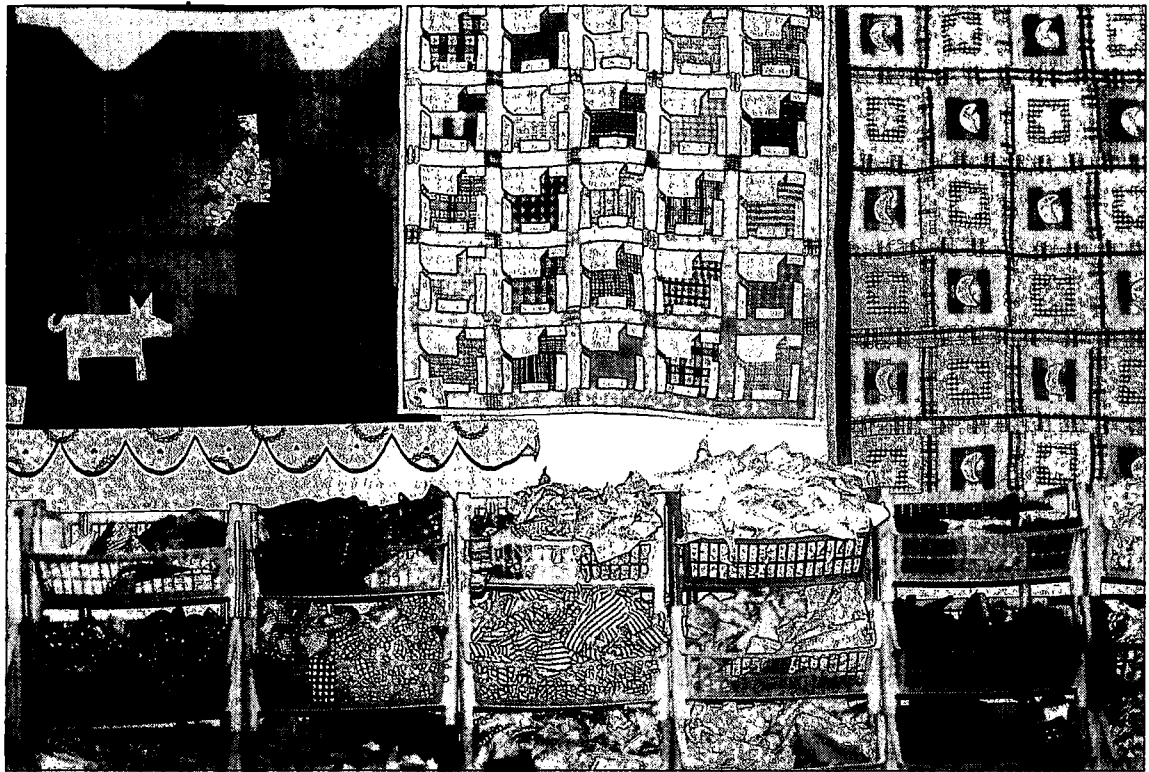
The Cairo *zabbaleen* who handle one-third of the garbage of a city of 14 million people, show us that waste management is a powerful employment-generating sector for the semi-skilled and for the illiterate. In a rapidly-urbanizing country like Egypt where 60 per cent of the workforce is estimated to be semi-skilled and unskilled, and where the formalization of waste management is yet to occur, the potential for employment in and around matters of the environment (conservation, waste collecting, recycling, etc.) is enormous.

Furthermore, as in the case of the *zabbaleen*, using waste management within the informal sector as a means to introduce appropriate technologies and basic education can lead to the empowerment of impoverished groups. It is the whole strength of the informal and popular sectors, as platforms for alleviating poverty and integrating education, that is revealed in the *zabbaleen* experience. It is a strong lesson to governments and development agencies who often don't recognize the power of the informal sector, in spite of the fact that it is actually on this economic fabric that historically many countries have managed to develop large and powerful modern

economies. When one looks at the vitality of the waste management system in Cairo with its informal bartering, recycling and processing, one can see that the informal sector is a driving force for innovation and efficiency. It is already paving the way for national development and the empowerment of the poorest segments of society.

A.P.E. strongly believes that there is no blueprint for development. It can come from any angle and be built on many forces - waste is one such force for development. CID, the consultancy firm that has worked alongside A.P.E., estimates that, in the case of Cairo, for every 3,000 tons of garbage the city generates, 1,500 employment opportunities could be created for Egypt's unemployed youth. When one considers that Egyptians generate an average of 25,000 tons of municipal waste daily, or 10 million tons per year, the potential for employment appears vast, especially when the formal systems of collection and disposal are still not perfect. What is for sure is that Egypt cannot carry on, especially in the new cities such as those on the Red Sea Coast, burying waste in landfills or burning refuse. If, on the other hand, the Egyptian tradition of recovery, recycling, waste separation and informal manufacture is nurtured, then only 15 per cent of waste need be landfilled. Similarly, creating more and more organic compost from refuse can only benefit further efforts to reclaim desert land and contribute to greater food security in the country.





From rags to empowerment

In 1994, on the impressive results of its Rag Recycling Unit, A.P.E. was granted what is considered the “Nobel prize” of environmental projects: the Goldman Environmental Foundation Prize. In 1995, A.P.E. received the United Nations Environment Programme’s “Global 500 Youth Environment Award” for its outstanding practical achievements in the protection and the improvement of the environment. In 1998, A.P.E. again picked up another prize, the Dubai International Award for “Best Practices in Improving the Living Environment”. It is not hard to see why A.P.E. has been thus rewarded. In a relatively short space of

time, from the mid-1980s to the present day, Mokattam has managed to transform itself from a vast sordid squatter settlement scraping a living off waste and animal breeding to become a key neighbourhood in the recycling and waste management industries. More than 200 micro-enterprises now operate in Mokattam.

This feat is due mostly, of course, to the sheer industriousness of the *zabbaleen* but also to the way in which A.P.E. was able to spark off change from within the community. A.P.E. starts and finishes with the *zabbaleen*. It belongs to them. It is run by them,

spread by them, sustained by them. The structure of the project with its informal networks (volunteers and paid staff within the community), its communication links (based on relations within and outside the neighbourhood) and its philosophy all reflect the social, cultural and economic situation of the garbage collectors' world. This symbiosis between the development project and the *zabbaleen* means that everyday actions are no longer about mere survival but about building up the community.

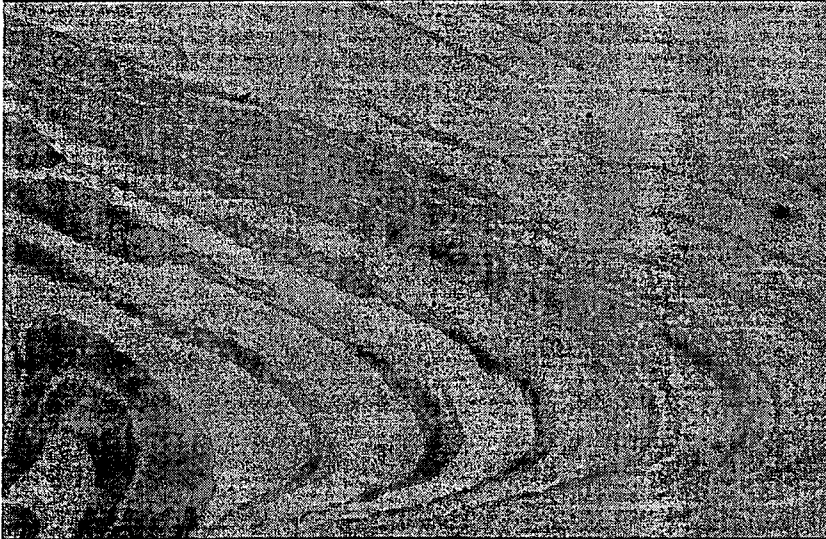
As the *zabbaleen* gain in strength and organizational skills, so their role as keepers of the environment is growing. A.P.E.'s campaigns, and their transfer of technology to the South Sinai and

abroad, for example, are becoming widely known in Egypt. Similarly, the successes of the Rag Recycling and the Paper Recycling Units reveal that the *zabbaleen's* hands, those very hands which have spent long years sorting garbage, can also produce the most beautiful patterns and designs. The young people of Mokattam and Tora, society is discovering, are no longer mere garbage collectors but messengers of a different vision of the world where respect for the environment and sustainable living have become a necessity. With the excesses of modernity and urbanization piling up refuse in our cities and countryside, in both North and South, it is high time we listened to the *zabbaleen*. For those often vilified for their squalid work have much to say.



FEATURES

The *zabbaleen* recycling web



The recycling web spun by the *zabbaleen* is unique in Egypt and means that most waste can be transformed and re-used. Following is a brief overview of how each matter is processed by the garbage collector community:

● Plastic

This is one of the most commonly found matters in household garbage (food containers, mineral water bottles, black garbage bags, medicine bottles, etc.). Once it arrives in Mokattam it is traded out to middlemen and then to various households who know how to transform it. Over the years plastic has achieved a prominent place in the hierarchy of wastes handled at Mokattam with a highly developed system of trading, processing and manufacturing. Food containers or mineral

bottles such as oil bottles are sorted by colour, cut in half and boiled in water and ammonia. They are then passed through a crusher or granulating machine and re-manufactured to become coat hangers, jugs, cups, spoons, lollipop sticks, etc. Black garbage bags are washed with soap, dried and passed through the crusher. These can again be made into black shopping carrier bags or garbage bags. Most of these products are sold on the informal market which is the major selling and buying place for low-income groups.

● Cloth

A machine, with two cogs which rotate anti-clockwise, is used to grind discarded cloth. It produces cotton matter or fluff that can be used to stuff mattresses, pillows or cushions. These products are also generally sold on the informal market where they are in great demand.

● Paper and Cardboard

A paper and cardboard compactor allows for paper matter to be processed into bales. These can either be sold to large-scale industrial businesses or used to make sheets of recycled paper.

● Aluminum

The *zabbaleen* have designed their own aluminum smelters which consist of a deep furnace powered by kerosene. This allows for aluminum to be melted down. It can then be poured into moulds of any shape or size.

● Tin

Aerosol cans, food containers, etc. are flattened and tied into bundles. These are then cleaned by being boiled in water and potash. Ash is used to remove any remaining rust. The recycled tin can be processed again to make cans and many other useful items.

● Animal Bones

These are collected and crushed to use as agricultural fertilizers. They are sold to middlemen who process them into fertilizers to sell to farmers working in the Nile Delta.

● Organic Compost

This aspect of the *zabbaleen's* work is particularly professional as it relies on the industrial size Organic Compost Plant installed by A.P.E. in Mokattam. The plant allows for organic refuse and the waste matter, generated by the *zabbaleen's* animals, to be processed and fermented to eliminate harmful bacteria. The resulting high quality manure is now one of the best grade composts sold in Egypt and is used in land reclaiming in the desert. The compost plant also means that the *zabbaleen* can regularly empty their animal pens, thus reducing health hazards.

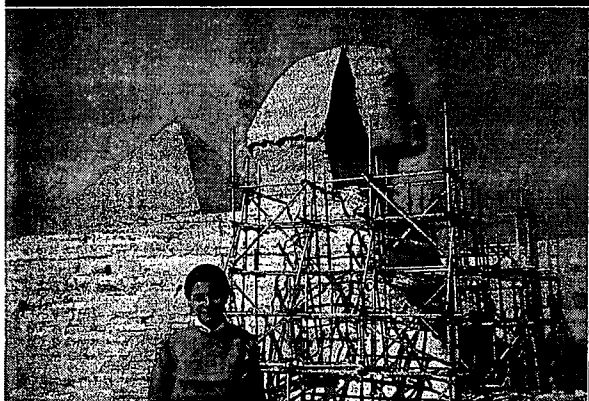
● Glass

Whole and undamaged glass (such as soft drink bottles) is recovered and sold back to the company that produced it. The type of glass that is not accepted back by the original companies is traded for use as containers for household cleaning liquids. Broken and damaged glass is collected and sold to glass-blowers - a long tradition of glass-blowing exists in Egypt.

FEATURES

A breath of fresh air

A.P.E. organizes field trips for its girl and young women learners every year. These are a chance, the first for many young people and children of the garbage villages, to escape the squalor of their environment. Indeed,



Mokattam, and other garbage neighbourhoods, are striking in the fact that they have no areas for recreation, no places to breathe fresh air and escape from waste matter. At Mokattam, this means that wherever you look or step, the houses and

workshops are all involved in the task of managing refuse and scrap. There is no respite from garbage. The effect of this on children and young women is evident. They have rarely taken part in the world beyond the garbage villages and have rarely participated in those recreational activities that are regularly enjoyed by mainstream society.

For this reason, A.P.E. realized that a well-planned programme of field trips, or organized excursions outside the garbage villages, was highly necessary. Nowadays, field trips normally take youngsters to historic sights such as the pyramids (to awaken a sense of history and artistic beauty), to parks (to

discovery greenery) or to the zoo (to discover the diversity of the animal kingdom) but they can also turn into longer stays during so-called "summer camps". These annual events take place along Egypt's northern Mediterranean coast or on the Red Sea coast. Just being able to walk along a beach, the sound of waves breaking in the salty air, is an experience that marks the A.P.E. learners forever. Around 100 participants enjoy summer camps each year. A.P.E. trainees go on these trips for free but those already engaged in some form of cottage industry (i.e. rag recycling) pay a nominal fee of about US\$3. This decision was actually made by the participants themselves.

Non-formal education is very much part of the summer camps. It does not revolve around literacy but takes on more practical hands-on methods and topics such as personal hygiene, how to avoid common diseases, how to be more environmentally aware. Arts, dancing and singing are used as means of instruction. As Laila Iskandar Kamel points out "development without song and dance is too oppressive, inconceivable and so un-Egyptian." Impromptu plays are put on, ballads are sung - all are part of a process to allow the girls to socialize and express creativity. Positive attitudes and pragmatism are encouraged. The way learners view themselves and their work is enhanced (pride in being garbage collectors, pride in professional work, etc.). It is not a question of wanting to change youngsters but rather to give them the tools to deal with and change the outside world - these tools are vital if they are to contribute to the development of their

communities. Many camp facilitators from use situations such as bedtime, departure time, meals and lining up to get on the bus as moments to introduce notions of discipline and tidiness. Every moment is a moment to learn, and all the more so when everyone is happy and relaxed.

It should be noted that A.P.E.'s project leaders and staff also travel outside Mokattam on specific trips together. For example, each year members of A.P.E. take part in the cleaning of Mount Sinai, to rid the area of the trash left by tourists. After a day's cleaning, the team can then enjoy resting by the sea at Nuweiba.

An A.P.E. trainee

Amal Nabil is 22. She considers APE to be her "home" - a place where she feels at ease with a philosophy that has allowed her and her neighbourhood to change. Amal arrived at the APE centre in 1994. She readily admits that she was completely uninformed about so many things before coming to APE. Through the weaving project she came to learn so much and not just simple loom work. She particularly liked preventive medicine as a subject and decided to train as a primary health worker in the community. She is now convinced that many diseases in the neighbourhood could be reduced if garbage was not sorted manually and rather separated at source. Luckily, her parents fully back her commitment towards APE's work and support her desire to change things in Mokattam and other neighbourhoods.

The first obstacle she encountered at APE, Amal says, was that she couldn't

seem to express herself clearly and accurately - in other words form an opinion. There were so many new things being presented to her, new ideas, new ways of seeing and organizing the neighbourhood, that she just couldn't seem to take it all in at once. The staff at APE encouraged her daily, saying that she didn't need to form an opinion straight away, she should just take her time to look around, assess what she saw and then give her own view on things. Her eyes sparkle when she speaks of the field trips. These she says revealed a whole different world outside. Someday, Amal hopes, "our streets will be clean and beautiful and people will come and visit us in homes as we work at our looms."

Whilst at the APE centre she heard about the joint UNESCO/APE project and how young people from Mokattam were being trained to set up door-to-door teams to transfer their knowledge to Tora. She immediately

wanted to join and began visiting families and training a group of girls in Tora who would then be able to act as preventive health workers in their own neighbourhood. Her knowledge of separation at source methods also meant that she could join in the clean-up campaign in Maadi, informing inhabitants beyond the confines of her own neighbourhood. The most exalting thing about working in Tora, Amal says, is that "I can communicate all the things I have discovered to those who haven't had the chance of learning before." There is still a long way to go though as the situation in Tora is very bad, but Amal and her peers from Mokattam feel confident that they "now have skills to share and these can make a difference in other peoples' lives." The self-confidence that the Mokattam/Tora transfer of knowledge has given Amal is, in many ways, the very symbol of empowerment that APE seeks to foster.

Education to fight **EXCLUSION**

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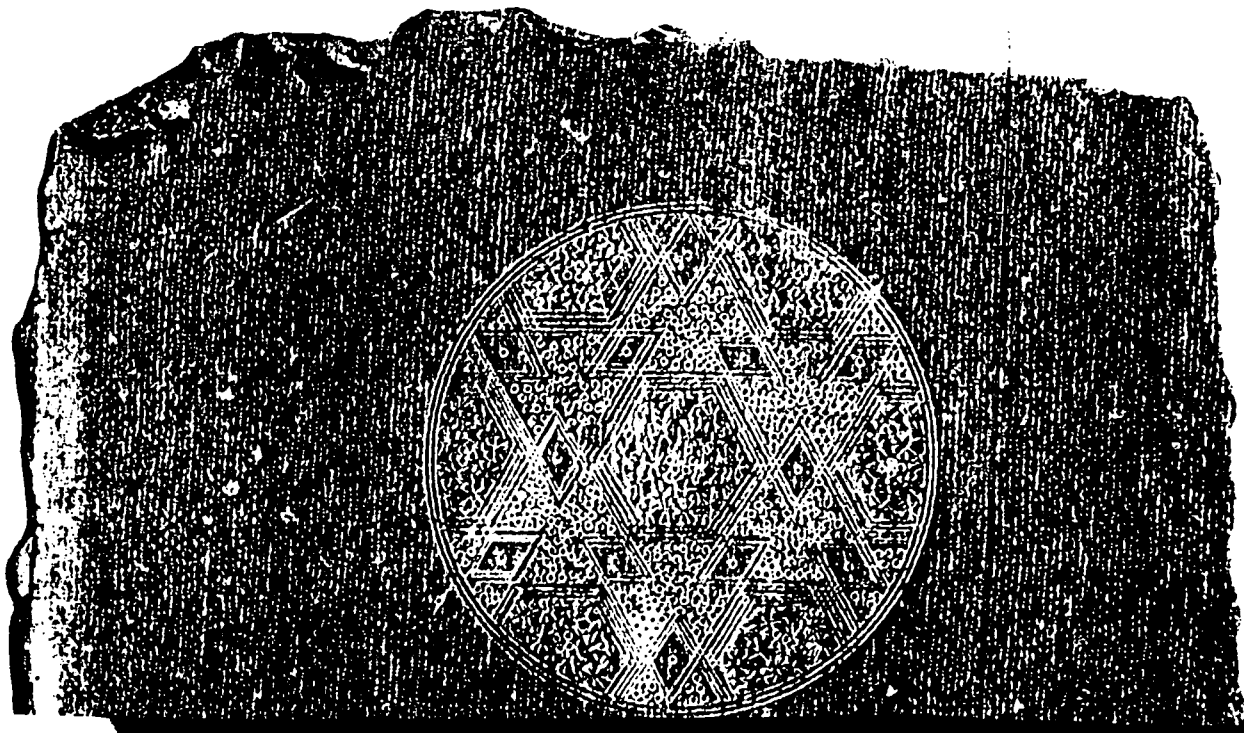
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45



Education to fight **EXCLUSION**

Many inhabitants of Cairo, Egypt, depend on the *zabbaleen* (garbage collectors).

but how much do they know of these people who make their way up and down the city's crowded streets every day picking up and recovering refuse? If they looked into the *zabbaleen*'s history, and that of the garbage neighbourhood Mokattam, they would discover a busy world where inventiveness and the need to survive have given birth to new ways of looking at the environment, basic education and development.

Since 1984, the Association for the Protection of the Environment (A.P.E.) has been working with the *zabbaleen* in improving living conditions and bringing about change. The result is a series of impressive programmes, where literacy, numeracy and health are mixed in with practical skills: rag and paper recycling units, neighbourhood upgrading schemes, an organic compost plant, a children's club, a nursery and much more.

Today, the *zabbaleen*, in collaboration with A.P.E., are taking their skills and programmes way beyond their neighbourhood of Mokattam, to other "garbage villages" around Cairo, to the new resorts of the South Sinai and abroad. This spread of expertise shows just how waste management can become an entry point for the empowerment of the excluded and how key the *zabbaleen* example is, if society wants to deal effectively with the increasing waste generated by cities and its devastating effect on the environment. This booklet should be of interest, not only to actors in education, but to all those seeking to understand the mechanisms of exclusion and the forging of new paths towards community empowerment. What the *zabbaleen* have proven, particularly the young amongst them, is that mainstream society can no longer afford to ignore the poor, for they are the guardians of vital knowledge for the future.

Mokaitam Hills

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