THE RESTORATION OF THE AREA OF 'ELEONAS' (HOLLY OLIVE GROVE) AND ITS CONTRIBUTION TO THE UPGRADING OF THE ENVIRONMENT OF ATTIKI

by

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INTRODUCTION

The once picturesque area of the 'HOLLY OLIVE GROVE (ELEONAS)' of Athens situated on the western boundaries of the area of Athens 'Asti' has gradually become an amorphous transient jumble of patches of an unstable grey colour and of fumes coming from burning mineral oils and useless car tyres.

The area of the Olive Grove borders on the South estuary of Kefissos river as far as Piraeus street, it crosses the axis of Piraeus street and reaches as far as Athinon Avenue.

It has a total area of about 2223 acres (9,000,000 m²), and it includes sections of the following Municipalities: Athineon, Egaleo, Peristeri, Tavros and St. John Renti.

The only patch containing olive trees is found at the junction of Petrou Ralli street and Thivon street.

The present study aims at recording the continuous restoration efforts through the years, the present-day situation and the development of concrete recommendations for the purpose of employing this area of great historical importance and environmental value to the greatest possible advantage.

1. GENERAL INFORMATION

It is first in 1954 that the State begins to realise the twisted course that the development of the area of Eleonas has taken, and it tries to reverse the degradation of this Holly area, unsuccessfully, however, by carrying out various environmental studies and passing drafts of Laws and other decrees. Unfortunately, this area will soon end up to what some people call a 'City Planning Abscess' (not unjustifiably so).

Subsequently, the regeneration of the area is under way through a series of Regulatory interventions in 1965, 1979, 1980, 1981 and 1984. [1]

The Regulatory intervention of 1985 constitutes a truly substantial effort to reclaim the area, and takes shape and form to all intents and purposes in 1995 (Presidential Decree 1049/D/20-09-95). The most important Guidelines of the City Planning Study are as follows:

- 1. Creation of an area of greenery, which is important for both the local area and the greater Basin of Attiki, by means of planning single areas of greenery-recreation-sports and cultural activities. (Greenery and spaces intended for Public Use: 65%)
- 2. Re-establishment of the Historical identity of the area (Iera street, Piraeus street, etc.) and its gradual integration into the Archaeological Park of Athens City. Along these lines, a small part at the beginning of Iera street has already been incorporated into the Park.
- 3. Improvement of the legislation with regard to the Use of Land.
- 4. Sanitation and renewal of Industrial production.
- 5. Elimination of polluting factors.
- 6. Limited use of strips of land occupied by Public Utility Organisations which will be given up for the purpose of creating more greenery zones. Relocation of army barracks.
- 7. Creation of underground parking spaces.

- 8. Improvement of Traffic and Public Transport in general.
- 9. Mild development of activities and reuse of the more significant buildings handed down to us.

2. PRESENT-DAY CONDITION OF THE AREA

The geographical location of the area, its proximity to the centres of the cities of Athens and Piraeus, and its easy thoroughfare by public transport arteries of greater than local significance such as the National Highway, Athinon Avenue, Piraeus, Petrou Ralli and Iera streets render the area a junction point of the greater Basin of Attiki with immediate access to the roads connecting the major commercial ports of the country and the road networks of Northern and Southern Greece.

These conditions make the area an ideal location for the purpose of setting up and developing various commercial and product transformation activities.

However, it was due to the ambiguity of the current institutional framework and the fact that the area had not been integrated into an approved city plan for so many years that the development of arbitrary activities and building constructions thrived and subsequently contributed to the degradation of the identity of the area and of the surrounding environment.

The area of Eleonas never ceased to constitute an important INDUSTRIAL ENTITY for the Basin of Attiki, although it exhibits intense signs of environmental degradation, (Table 1).

TABLE 1
Use of the area of Eleonas today

| No | Description of Use | Percentage (%) | Area (m²) |
|----|---|----------------|-----------|
| 1 | Industries, Factories | 40 | 3477 |
| 2 | Land cultivation, Sports facilities, Waste land | 13.3 | 1153 |
| 3 | Building material Yards, Transport Agencies, Car stations | 9 | 783 |
| 4 | Warehouses | 6.7 | 586 |
| 5 | Military installations | 2.5 | 219 |
| 6 | Vegetable Market | 2.7 | 233 |
| 7 | Public Utility Boards | 6 | 523 |
| 8 | Housing | 4 | 342 |
| 9 | Education | 2.5 | 225 |
| 10 | Commerce | 5.3 | 446 |
| 11 | Road Network | 8 | 713 |
| | TOTAL | 100 | 8700 |

The location and **development of Industry** in the area was greatly helped both by the extensive road network which surrounds the area and facilitates access to the centres of commerce and by the presence of support and service activities (transport agencies, warehouses, electric power facilities, yards dealing with the repair of heavy duty vehicles, etc.). [2]

At the same time, land properties whose size was considerably large greatly encouraged setting up and operation of new production units.

Housing development is not favoured because of the particularly heavy traffic load of the thruway network surrounding the area, pollution of the atmosphere which is caused by industrial activities and the increased traffic of heavy duty vehicles, inadequate local road network, lack of social infrastructure facilities and of public services meeting everyday needs.

The area of Eleonas takes up parts of the Municipalities of Athineon, St. John Renti, Egaleo, Peristeri and Tavros. The area within the boundaries of the Municipality of Athineon only is 2,250,000 m². The quantitative distribution of the grove makes it especially difficult to follow a common policy as far as the restoration of the entire area is concerned.

3. ENVIRONMENT AND ATMOSPHERE

In the early 21st century all modern cities are faced with social, economic and especially environmental problems. The environmental degradation that we encounter everyday has led to degradation of the quality of life of the city dwellers who amount to 280 million people in Europe alone.

In the last thirty years we have experienced a continuous deterioration of the atmosphere. Suffice to say that :

- Two billion tonnes of wastes is produced in the member states of the European Union every year with a yearly rate of increase of 10%.
- It is estimated that CO₂ emissions caused by transport and households will continue to increase until 2010, at least.
- The quality of life in the cities continuously deteriorates (atmospheric pollution noise levels).

Environmental protection has become a major issue of top priority on an international and European level. The international community is greatly concerned with the protection and improvement of the environment, as shown by the Agreement-Framework of the United Nations on the climatic changes in the International Conference of Rio de Janeiro in 1992, and as first target the Kyoto Protocol in 1997 concerning the elimination of gas emissions with regard to the Greenhouse phenomenon. On a European level, the ever increasing deterioration of the environment has mobilised the entire community. Initiatives and actions have been taken by the Community for the prevention of the deterioration of the environment as far back as 1982. The Amsterdam agreement adopted the issues of environmental protection and of its continuous improvement as the fundamental priority of the Community. The '5th Plan of Action for the protection of the Environment' covered the period from 1992 to 1999 with the purpose of implementing the conclusions of the world conference in Rio de Janeiro in 1992 and signalled a series of actions in five areas with high pollution rates

(Industry, Energy, Transport, Agriculture and Tourism).

The partial success of the '5th Plan of Action for the protection of the Environment' has proved that the problems still persist, although some progress has been achieved in reducing the levels of pollution in some areas. The main conclusion is that the philosophy behind the course of action for the protection of the environment must change radically. It has been decided that immediate action must be taken in the following areas⁶:

- Immediate evaluation of every political, economic and social initiative and action taken for the protection of the environment.
- A new push must be given and a special effort made in order to solve difficult environmental problems.
- Strict enforcement of existing environmental legislation in the state members.
- The emphasis must be put on a more active involvement of private initiative and of European citizens in an effort to protect the environment in exchange for powerful motives.

These major guidelines have been incorporated in the 6th Plan of Action for the protection of the Environment' which will cover the period from 2000 to 2010.

The pollutants which are released in the atmosphere of the area of Eleonas in the Basin of Attiki are as follows:

Ozone (O_3) : increased levels during the first hours in the afternoon,

Carbon Monoxide (CO): increased levels have been observed in the early morning and early evening hours in winter,

Sulphur dioxide (SO_2) : increased levels are observed in the early morning and early evening hours, in winter too,

Nitrogen dioxide (NO₂): the levels of which increase between 10 and 12 in summer months.

Carbon trioxide (CO₃).

Pollution levels go up every time there is a southbound and westbound wind blowing at a speed less than 5 m/s.

In the area of Eleonas, 50% of fume emissions and 60% of SO₂ emissions come from two industrial plants, SOFTEX and ERMA.

More specifically, in the area of Eleonas, 18% of fume emissions comes from industrial plants in the Basin of Attiki, 24% of SO₂ emissions and 15% of Nitrogen Oxides. These figures have been increasing with a geometrical progress in the last ten years.

The local road network is inadequate, there is a lack of fundamental infrastructure, and although it serves important production activities, the width of the roads is minimal and traffic lights non-existent. The proximity of the area to major highways is the source of increased noise pollution and severe consequences to the city area of Athens lying nearby.

Therefore, any improvement of the environmental conditions in the area should constitute the first and foremost priority in an effort to restore it to its former state.

4. RECOMMENDATIONS WITH REGARD TO THE RESTORATION OF THE AREA OF ELEONAS

The Athens Organisation and the National 'Metsoveion' Polytechnic have cooperated in order to pass Presidential Decree 1049/D/20-09-95, whose main objectives are as follows [3]:

- Protect and encourage all productive activities, which do not generate any pollution, are healthy and operate legally,
- Have their right to remain in the area recognised by the State, and subsequently help modernise them and ensure that all the necessary infrastructure and service facilities are provided in order to facilitate further development,
- Improve environmental parameters,
- Create green zones for public use,
- Eliminate sources of pollution,
- Employ the various archaeological sites in the area to the greatest possible advantage,
- Ameliorate housing and working conditions for the purpose of improving the quality of life in the West suburbs of Athens,
- Deal with all political, economic and social pressures and developments in such a way so as to achieve maximum agreement among all those involved, and ensure viability of the Plan.

It is recommended that overlapping zones of secondary and tertiary use be established, in the light of an anticipated economic reorganisation which will eventually lead to the provision of services rather than the production of goods and subsequent reduction in the number of industries.

Long term planning and interventions which produce immediate results with regard to the area of Eleonas, but concern the entire region of Attiki as a whole and possibly other regions beyond that and try to provide solutions to accumulated problems, eventually lead to short-term solutions for the purpose of relieving existing pressure, deteriorating, however, living conditions in the area eliminates chances of survival in the long term. The strategic objectives as provided by the decree concern the removal of polluting industrial plants from the region and their relocation to other areas, and the creation of green zones to replace the facilities of public utility organisations and those of the plants which will be removed.

The remaining production units must be placed together in an organised manner in order to create *industrial pockets* in areas where the number of product transformation units is considerably higher. The land which is reclaimed after relocating the productive activities and which surrounds the units which produce low levels of noise pollution, are given to new units coming from elsewhere, with the proviso that these new units do not pose a threat to the environment (e.g. tanneries, foundries, metal-plating yards, pottery and tile factories), and possess considerable equipment and building facilities. Upgrading of the industry will gradually be achieved then.

Industrial zones are, therefore, divided into various categories, and the solution of organised industrial areas is abandoned since they are uneconomical in the present phase, at least, of land redistribution. The picture is like this [4]:

A) Purely Industrial Zones:

The operation of existing facilities, expansion and relocation from other regions of Eleonas or bordering areas of the 5 Municipalities, are allowed. The zones cover a total area of 1,420,000 m² or 18% of the total surface area. These zones are located around large existing factories in the mainland of Eleonas.

B) Mixed Zones of Industrial and Tertiary Use:

All uses of purely industrial zones are allowed, also the facilities of Wholesale trade, Retail trade, Management, offices, banks, insurance agencies, public utility organisations, showrooms, public congregation spaces, restaurants, multi-storey parking lots. These zones cover 22% of the total area or 1,698,000 m². They are located along major highways, they surround the purely industrial zones, and are situated between them and the thruways which cross the area. The comparatively large area shows the tendency to turn Eleonas into an area of development of the tertiary sector at the expense of product transformation, therefore, monitoring of these development tendencies is recommended.

C) Zones of Purely Tertiary Use:

All the uses of the previously mentioned zone are included except for industrial, car repair yards, and educational institutions. These zones have an area of 300,000 m² and cover about 4% of the total surface area. There are two such zones, one at the northern end of P. Ralli street, and the second along both sides of Athinon Avenue, from Kifissos river as far as the boundaries of Srakakis facilities.

D) Mixed Zones of Tertiary Use and Residential Areas:

They include Management, Offices, Retail trade and Show-rooms, Housing, restaurants and other places of public congregation, educational institutions, (they do not include wholesale trade). They have an area of 250,000 n², and cover 3% of the total surface area. They are located at two points alongside Iera street, and in the section which borders on Piraeus street. The use of housing is innovative compared to all aforementioned recommendations, and the objective is to aesthetically upgrade the areas along Iera and Piraeus streets, however, it is estimated that in no case does the High Street character that Piraeus street gradually achieves match the housing use especially along the front of the traffic flow.

E) Transport Parks:

Transport Agencies which serve the units inside the area of Eleonas. Four such spaces are recommended, one in the section of Egaleo on the same spot where agencies are located today, one in Athens, surrounded by Ofeos, Demaraki and Salaminas streets and two in the Municipality of Renti, where a park is divided into half by a railway line. They cover an area of 2% of the total surface area or 140,000 m².

Residence: Existing residential nuclei are situated at unsuitable locations often lying outside the city plan and usually of bad or mediocre quality, for example, the small residential areas of Marconi, Perivolakia and St. Anna are known, but there are complexes of blocks of flats

built by State Housing Agencies for the purpose of providing a home for the underprivileged.

The planning team recommends that the residential nuclei lying outside the city plan should be integrated with the following conditions. Besides residence, the following are also allowed: Management, Offices, trade except for wholesale, professional workshops. In the section of the Municipality of Athens, the residential nuclei south of Marconi, on St. Anna street at the junction with Iera street. In Egaleo, the area of Trimi on Ofeos street. In Tavros, the area of Platanas next to the Park which takes up the area where the 'Apostolidis' army barracks used to be. In Renti, the area of Bihaki between Makrigianni street and Kifissos Ave. Essentially, the recommendation functions as a regulatory clause which protects existing situations.

Education: All existing educational establishments in operation are in the process of being integrated into the network of green zones under construction, and present options for the location of new ones.

Green Zones intended for Public Use: Today there is not enough coverage with green areas, the land which can be exploited with immediate results has an area of 1,150,000 m² or it covers 13.3% of the total surface area.

The use of green areas is limited to the creation of Parks and areas of City Greenery intended for public use, facilities used for recreational and cultural activities, training centres and sports centres. The zone of greenery will eventually cover an area of 3,000,000 m².

The main Bulk of Greenery extends in the mainland between St. Anna and the stream of Prophet Daniel. This elongated arrangement which starts from Athinon Ave. and ends in Renti is crossed, near Iera street, by another similar arrangement which starts from the Agricultural School and ends at Kifissos river.

TABLE 2

Recommended type of Land Uses in the area of Eleonas

| No | Description of Use | Percentage (%) | Area (m²) |
|----|--|-------------------|-----------|
| 1 | Purely Industrial Zones | 18 | 1420 |
| 2 | Mixed Zones of Industrial and Tertiary Use | 22 | 1698 |
| 3 | Zones of Purely Tertiary Use | 4 | 300 |
| 4 | Mixed Zones of Tertiary Use and Residence | 3 | 250 |
| 5 | Transport Parks | 2 | 140 |
| 6 | Residence | 0 | 0 |
| 7 | Education | 0 | 0 |
| 8 | Greenery | 0 | 3000 |
| | TOTAL | 49 | 6808 |

5. BODY FOR THE MANAGEMENT OF ELEONAS

A private entity for the public benefit will be established in accordance with the draft of law carried out by the Organisation of Athens and the National 'Metsoveion' Polytechnic, entitled 'Restoration and Management of the area of Eleonas in Attiki, S.A.' (ADEA S.A.) and the Municipality of Renti will be designated the company's seat. The objective of this company will be to carry out and implement city planning studies and amend them, to carry out the study, the construction and the management of the works and of the installations, to make sure that financial resources are made available and assign the construction of works to third parties. The company cooperates with interested Organisations of Local Self-Government (OTA) and informs them about the projects soon to be implemented. Unfortunately, the range of powers of the body cannot play a decisive role in the area transformation process and they are mainly of a coordinating and advisory character to the Municipalities. A radical transformation of the Body is required accompanied by powers transferred from the OTA to the Body, complete responsibility with regard to handling all the issues concerning the area, and generous financial funding using national resources.

6. CONCLUSIONS

The reformation of the area of Eleonas has already been delayed for too long.

The environmental consequences of this inactivity are visible all over the Basin of Attiki, given that the area of Eleonas constitutes one of the remaining leases for life. [5]

Besides the environmental consequences, the economic consequences due to the stagnating condition of the area as well as all negative consequences with regard to the Public Health are considerable.

The continuous referral of the materialisation of the approved area plans to European funding can only be considered an insupportable excuse.

Giving a new lease of life to the entire region of Attiki should be a national priority on a political, economic and social level. [6]

Unfortunately, the last seven years, since the final studies with regard to the reformation of the region were approved, have been wasted in carrying partial amendments, changes of dubious expediency on the part of the Municipalities involved, continuous delays in removing all polluting activities from the area, etc. [7]

The establishment of the 'Organisation for the Restoration and Management of the area of Eleonas in Attiki', which is a recommendation of the Organisation of Athens by order of the Ministry of Environmental Planning and Public Works (YPEHODE), does not constitute a feasible solution to the problem because its powers on an economic and administrative level are not worth considering, and it is called upon to play a purely coordinating and advisory role to the Municipalities involved.

At this point, we should point out that the 6th Plan of Action for the protection of the Environment by the EU covering the period from 2000 to 2010 sets very strict penalties for

all those who do not comply with the environmental protection directives of the EU given that the course of development of all environmental problems ('Greenhouse' effect, ozone depletion, photochemical clouds) shows a considerable deterioration in the last decade 1990-2000.

Therefore, full political priority should be given to the protection of the area of Eleonas in that the State should proceed with the creation of a truly powerful 'Body for the Management of the area of Eleonas' with regard to powers held, financial resources and administrative organisation ensured, whereas the Municipalities involved should give their complete and undivided support immediately on all levels to the 'Body for the Management of the area of Eleonas' and should see that possible transfer of powers from OTA is carried out in order to witness the materialisation of the approved environmental reformation of the area soon enough.

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