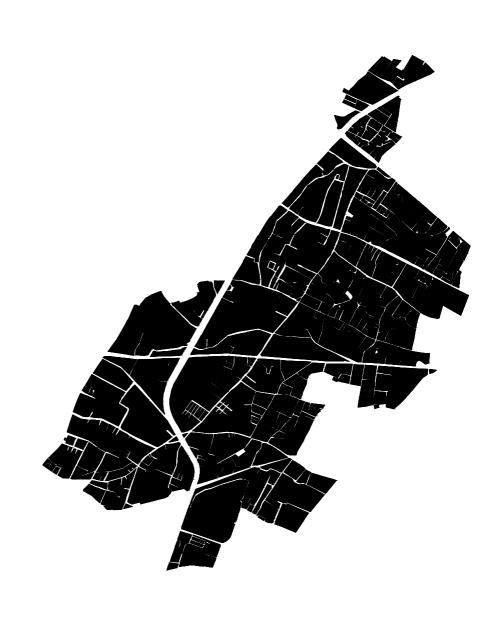
ELEONAS, an enclave in Athens

ΕΛΑΙΩΝΑΣ, ένας θύλακας στην Αθήνα





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Alexandros Fotakis Proffesor Christian Gilot January 2013 **EPFL**

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INTRODUCTION

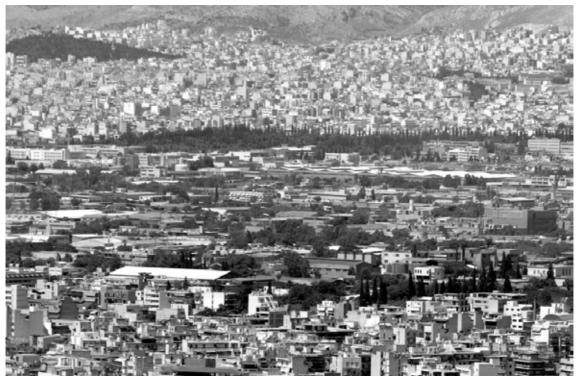
Following one of the main routes connecting the centre of Athens with the west side of the city, a moment comes that something change in the urban landscape, the scales feel bigger, but this shift is not a radical one, only a pause that continues for several minutes until it all gets back to its normal Athenian attributes. This "pause" is Eleonas (meaning literally "olive grove" in Greek), but what is visually perceived is only the external edges of the area. Behind lays the industrial zone of Athens, consisting of a vast area of 900 hectares, running parallel to the main river of Athens, Kifisos, defining the western borders of the central part of the city.

Eleonas is invisible, a non-existing lieu for the great majority of the Athenians. Despite its proximity to the city it lays hidden behind its physical limits, the big axes defining his geometry, edges that function still serving local and supra-local needs. Most people have a fragmented image of the area being constructed by information arriving mostly from the media over its future development. For me as well it was a constant riddle, since the first time I have entered it, more than 20 years ago, being fascinated by its existence since then. For this reason with this study it was intended to build, through the prism of my individual perception, a personal understanding of this part of the city, which could later on be the base for further dialogue.

Eleonas uses a word that cannot be seen, since very few olive trees remain. It is an industrial zone in obsolescence but at the same time it is perceived as a vast archipelago of incoherent activities, in-between two urban centres, that of Athens and that of Piraeus. In-between the cultural, political and religious ruling situated around the Acropolis, and the port serving it and its production. Around Eleoans' body, it is densely populated and in it, searching thoroughly, someone can find some isolated residential islands, products of another era. Inside Eleonas, some things work, some not, it is certainly though an area of an extreme temporality, but at the same time with its long uninterrupted history - sometimes still apparent in its higher layers - it can recount the evolution of the city of which is a very important part. If we could lift the ground, we would find a roman villa and if we just turn our head eastwards our view collides with the image of the Acropolis.

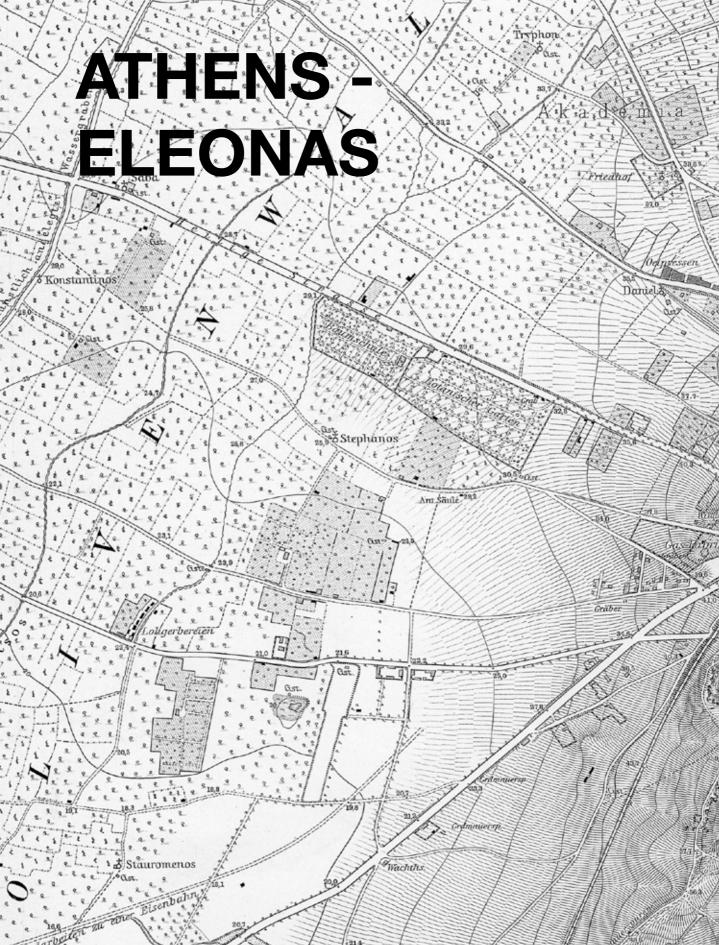
Hence Eleonas, apart from its proximity to the centre of the city and that combination of very strong axes defining him spatially, converting him into a closed body, possess that rich stratigraphy where at the same time participate, archaeology, its agricultural past leaving its strong mark in its urban evolution, industry with its continuous decline and a city that seek the manner to be diffused in its inert body redefining it. This rich mix makes Eleonas particular, a transitional area, were each phase has left visible its traces. The depth of time here is conceivable just by walking around, but the area is not a welcoming place for "flâneurs". The introvert character of it current activities have turned the whole zone into a private land leaving visible only fragments of its current contents.

Now the area is in transition once again and this time the destination is not that clear. This new redefining period takes place for the last 30 years and that happens for two reasons: in order to cleanse the city from the dirt of the industry and because of the fact that now it is not us who need to produce anymore, but someone else, somewhere far away, leading to this transformation of the area into a mosaic of temporary, inert and hybrid uses, waiting to carry on them a new purpose.



Eleonas, Athens, photo by N.Danilidis, 2006

Given its great size and complexity both spatial and evolutive, the study over such an entity needed the use of different approaches in different scales, in order to give responces to the various questions that aroused during this investigation. Nevertheless, despite that, it is very difficult to arrive into specific conclusions for the current situation of an area like Eleonas due to its constant transformation that takes place right now. For that reason it was tried to understand not only the current contents of the area and their tendencies, but take a closer look and focus on what it is really made off. And that was done trying to interpret the phenomena that have shaped its physical reality, find which are its predominant qualities, and how the area is perceived by its users so to finally construct a personal idea of its unique character.







ATHFNS

Athens is the capital of Greece since 1834, it is situated in the plain of Attica on the southern part of mainland Greece with direct exit on the Aegean sea via its main port Pireaus. The Region of Attica includes the whole peninsula of Attica and some islands and is one of the 13 regions of Greece. It consistes by 8 Regional Units, five of them being located in the basin of Attica (Central Athens, North Athens, West Athens, South Athens and Piraeus), two being located in the rest of the peninsula, (East Attica, West Attica) and finally the separate regional unit of the islands. These 8 regional units are divided in 66 municipalities, each one of them having an elected city council and mayor. Finally the municipality of Athens, including the central part of the city, in made up, of 7 municipal districts. The Region of Attica is by far the most populated of the country with a total population near 3,7 million inhabitants. The Urban area of Athens, including the 8 Regional Units located in the basin of Attica (Lekanopedio Attikis) reaches 3,1 million¹ making it one of the biggest urban areas in the European Union. With a total population in Greece of 10,8 million inhabitants, in the Urban area of Athens lives the 3,48% of the Greek population and the 40,25% of the active employment making Athens something more than just a capital, it's where almost half the country lives in only the 4.5% of the country's area.

Athens:

Municipality

Population: 745,514 Area: 38.964 km² Density: 19,133 /km²

Urban

Population: 3,130,841 Area: 411.717 km² Density: 7,604 /km²

Attica

Population: 3,686,371 Area: 2,928.717 km² Density: 1,259 /km²



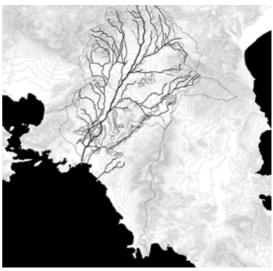
The Attica peninsula and the position of Eleonas, Landsat image, NASA, 2005

The modern city of Athens is built in the very same position of the historical city being a site of continuous habitation for the last 7000 years. As it is situated in the Attica basin its available space is strictly defined by the plains' limits. These are Mount Aegaleo to the west, Mount Parnitha to the north, Mount Penteli to the northeast, Mount Hymettus to the east and the coastline giving on the Saronic gulf to the south. In this manner the ancient city was naturally protected, easy to defend and from its strategic position in the centre of the plain Athenians could rapidly predict danger. The plain of Attica is 22km deep direction N-S and 10km wide direction E-W and it is divided in two parts by a series of hills which are from north to south: Tourkovounia, Lycabettus, Strefis, Agoraios Kolonos, Areopagus, Acropolis, Hill of the Nymphs, the Pnyx, the Museum, Ardetos and Sikelia's hill.2 Nowadays the city has reached its spatial limits, with only further expansion possible outside the basin, towards the Thriasian plain to the west, past Mount Aegaleo and the Mesogaia plain to the east, past Mount Hymettus.

In the east side of the plain runs the main water body of the territory, the Kifisos river, which is another natural limit of the territory. Kifisos sheds from the mountains of Parnitha and Penteli and bisects the territory in a parallel direction to that of the hills until it reaches its delta at the Faliro bay and pours into the sea in the Saronic Gulf. In the east part of the plain runs the second river of Athens Ilissos, which sheds from the mountain Hymettus and now pours as well at the Faliro bay, before it was pouring into Kifisos River, but was diverted due to flood problems in the adjacent areas in the 60's.

These two rivers, are characterised by high seasonality, when during the summer months they have a minimum flow of water and winter, especially during after rainfalls they carry a strong body of water that used to flood the southern part of their fluvial basin. Both of them have lost completely their natural characteristics, since they were canalised and then used in order to build roads on them. Ilissos still keep the last kilometres of its body still open, but Kifisos was almost completely covered before the Olympics in order to construct a new highway. The same has happened to the great majority of the 550km of streams in Athens, providing space for road building in the city's dense urban environment.3

2. J.Travlos, 1972, "Athènes au fil du temps, Atlas historique d'urbanisme et d'Architecture. Bergame, Editions Joel Cuenot. 3. E.Kotsikou, 2010, "De-fragmenting Athens, Drosscape as a Device for Integration Between the Metropolitan and the Local Scale", Delft, TU Delft.



Kifisos basin, in the Attica plain, Kotsikou, TU Delft, 2010



The Attica plain and the position of Eleonas, Landsat image, NASA, 2005

FI FONAS OF ATHENS

Eleonas is a part of modern Athens of an area of almost 900 hectares, being situated on the western part of the very centre of the city, being only 2 kilometres away from the Acropolis. In the area of current Eleonas. used to be situated the sacred olive grove of the Ancient Athenians that used to spread along the bancs of the river Kifisos taking advantage of its seasonal floods. This olive grove used to follow the river in almost all its length from the foothills of Mount Parnitha in the north all the way the river's delta in Faliro bay. In the northern limits of today's Eleonas used to be situated the famous Academy of Plato being constructed near one of the most sacred parts of the olive grove.

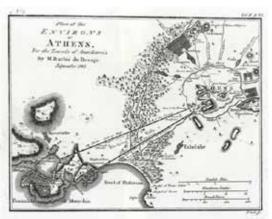
This olive grove despite being damaged several times, a big part of it existed intact until the beginings of the 20th century counting at that time 50000 trees. As the city stared growing it was gradually converted into agricultural land serving the nutritional needs of it. Then again, with the spread of industrialisation in Greece it was gradually converted in the main industrial area of the capital reaching its peak in the early 70's.

Although located very near the city centre, surrounded by densely developed areas, all integrated in the official statutory plan, Eleonas remained until the mid-1990's an out-of-plan area. Its local plan was approved by presidential decree in 1996, but the implementation of the plan has been effected for only a small part of the area, mainly because of land ownership disputes, which delay the necessary land registration procedures.⁴

Currently its character has changed once more. Most of the big industries have left the area leaving space for many different uses, from warehouses and small manufacturing units to parking lots, public utilities and malls, forming a strange patchwork, that have grown in the heart of the city with no control.

In its whole Eleonas looks deprived and partially abandoned, especially in its core area, and its indefinite character comes to direct contrast to its urban environment. It can certainly not be called an urban void, since it is the area of the city housing still its last production units, a supra-local hub for transportation and where social groups chased out from other parts, find refuge.

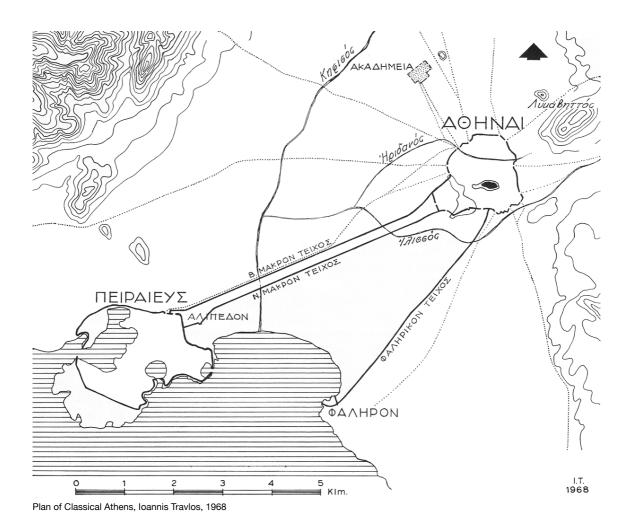
Being a complicated terrain, trying to understand its history, current structure, and existing networks operating there, is the right approach. In this way, with the right intervention, in the right pace, these existing elements could be approached and added as an extra value, instead of making them just disappear, something that would have direct impact in the general area of Athens.



The Environs of Athens, M. Barbie du Bocage, 1781

4. P.Sapountzaki and L.Wassenhoven, 2003, "Spatial Discontinuities and Fragmentation of Urban Areas – The example of Eleonas of Athens", Barcelona, 5th Biennal of Town and Town

History of Athens and Eleonas



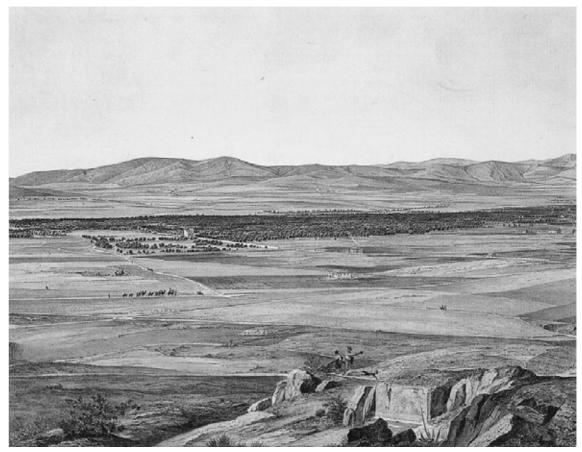
ANCIENT PERIOD

Eleonas is one of the few areas of the city of Athens that is still known by its original toponym used during the antiquity until now with no change during its lifetime. Eleonas in Greek means olive grove (Ελαιώνας). It was the most important element of the ancient green areas of the city whose traces articulate still the agglomeration of the contemporary city. This forest of olives was a unique manmade landscape, covering both sides of the valley of the holy river of Kifisos the most important river and main source of water of the plain of Attica. Eleonas was occupying an important area of the plain, starting from the foothills of Parnitha mountain in the north-western side of the area, all the way south until the river's meadow at Faliro Bay.

The plant of the olive was connected from very early times with the history of Athens. Already in the myth of the dispute between the two gods, Poseidon and Athena for who to become the protector god of the city, the Athenians have chosen Athena over Poseidon when she have shown her force by forcing the rock of the Acropolis to accept the first olive tree to grow on it. This was the present of the goddess to the city, the olive tree. According the myth, from this first plant grew the first 12 holy olive trees, one for each gate of the city, that were planted in the area of Eleonas under the tyrant Peisistratos and from these the olive grove was materialised. In his texts Dion Chrysostom says that Attica until that time was a treeless land and with a special order from Peisistratos, the widespread planting of olives begun for which a special legislation has been enacted.5

After the long period of the Persian wars, between the years 479 and 350 BC Athens as a city state of the Greek world reached its apogee putting the basis of a new system of governing, the democracy, having formed a powerful economic alliance with many other cities in the Greek space and it was during the leadership of Pericles that reached the highest point of its history. The vital space of Athens was the plain of Attica and spatially the city was formed by two poles that of Athens and it's port Piraeus connecting the city with the rest of the world. These two poles were protected by a set of defensive walls and were connected by a road, the Piraeus road also walled, forming like that a continuous defensive system that spread in between the city and the port being as well the lower limit of the area of Eleonas.

It was Solon that established a specific set of laws protecting the cultivating of the olive because of its great importance for the wellbeing of the city, and by the period of Pericles the harvesting of the olive and the production of olive oil has already grown significantly. Aristotle in his work "Athenaion Politeia" is describing with great details the way the holy trees were maintained and harvested and the their importance for the Athenians.



View of Western Athens with Eleonas in the middle from the Nymphs Hill, Ferdinand Stademann, 1853.

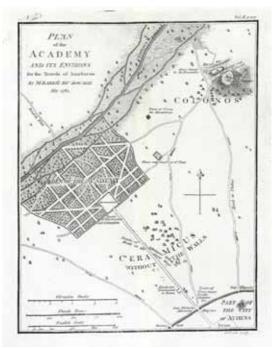
"Long-suffering father, Oedipus, the towers that fence the city still are faint and far; but where we stand is surely holy ground; a wilderness of laurel, olive, vine; within a choir or songster nightingales are warbling. On this native seat of rock rest; for an old man thou hast traveled far."

Antigone Oedipus at Colonus, Sophocles During this time the city of Athens was expanding until the suburb of Keramikos on the east side of Eleonas, where the most important gate of the city was situated. It was called "Dipilon" (the double gate) and it is where the "Sacred Road" (Iera Odos) connecting Athens with Elephsis (the holy city for the cult of Athena) and then the Peloponnese concluded, after passing through the olive grove of Eleonas and on its final part, on the sides of the "Sacred Road" the cemeteries of the city were positioned making this axis the most important and sacred of the city.

Also in the area existed the suburb of Academy named by the local hero Academos. It was situated about six stadia (1 mile) from the city's gate and it is where Plato founded his Academy in 387 BC, the most important school of philosophy in the ancient world until its destruction by the Romans in 88 B.C, when the whole suburb and parts of the sacred olive grove were burned. The school was reopened in 410 A.D by Neoplatonists only to survive until 529 A.D that the emperor Justinian I. closed it down for good.

It is sited that during the advancement of the Spartans against Athens at the final act of the Peloponnesian war, the Spartan army when it approached the "Holy grove" from the west, retreated frightened by the holiness of the site and the fear of retaliation by its almighty protector, the goddess Athena.⁶

For the citizens of ancient Athens that "most beautiful suburb" ($\kappa\dot{\alpha}\lambda\lambda\iota\sigma\tau\sigma\nu$ προάστιον) or the "Holy Olive grove" as it was known it was one of most preferable sites for their promenades and recreation. The combination of the dense olive grove and the river of Kifisos that traversed Eleonas was giving a particular beauty to the place praised by numerous historians and tragedians.



The Academy of Athens, M. Barbie du Bocage, 1781

^{5.} Z.Ropaitou-Tsapareli, 2006, "Eleonas of Athens, the place and it people in the passing of time", Editions Filippoti, Athens 6. G.Boudouraki and A.Gitzias, 2008, "Continuities and Discontinuities in a Changing Post-industrial Landscape, Athens, NTUA"

^{7.} Sophocles, "Oedipus at Colonus", transl. Francis Storr, 1912 http://classics.mit.edu/Sophocles/colonus.html



Plan of Athens during the Ottoman rule, Coubault, around 1800

BYZANTINE PERIOD & OTTOMAN OCCUPATION

During the byzantine and post-byzantine time Athens have declined into a small regional city in the periphery of a vast empire whose centre now has moved to the eastern part of the Greek world in-between the two continents in Constantinople, making the most of the eastern and the western heritage and surrounding cultures. Athens at that time lies too far away from from the capital and during that period, the mainland of Greece suffers from a drastic population decrease due to continuous invades by the Avars, Slavs and Goths, leaving space for newcomers from the north to install. These new populations sometimes were invited by the emperor to repopulate, empty or under populated areas and cultivate the land like the Arvanites who arrived in many waves in the 14th century, or likes the Vlachs who arrived earlier as nomads in the empty grasslands of central Greece.

In 529 AD the emperor closed down the philosophical academies of the city causing a fatal blow to the spiritual and economical life of Athens. From the second half of the 6th century the temples of Athens are transformed into churches and some new ones were built also in the area of Eleonas. The only prosperous period of Athens during the Byzantine times, was during the short-lived reign of the Komninos dynasty in the 11th and 12th century, when parts of the agora of Athens are built again after being abandoned since late antiquity and Athens becomes an important centre for the production of soaps and dves. This is to end with the fourth crusade when Athens was fallen in 1204 in Latin hands, first the Burundians, then the Catalans and finally the Florentines until 1458, when the city was finally fallen in Ottoman hands and entered a new era under Turkish rule.

During several raids by different invaders during that long period of turmoil, Eleonas was destroyed partially several times, but always has managed to regenerate and regain its original size. There are several reports of the state of Athens and Eleonas during the time. In 1395 Niccolò da Martoni, an Italian notary from Capua visited Athens and in his report states: "the city is between two mountains and encircled by a marvelous plain filled with beautiful olive tree cultivations (plura et pulchra oliveta)" and according to his testimony the city at that point has reduced in more or less thousand houses.8

During the Turkish rule, around 12,000 and 15,000 Greeks, Turks and Arvanites, inhabit Athens. With a relatively stable economy and an intense commercial activity the city provides the empire with olive oil, olives and honey. Depending their social and economical position, each of the different races live in a different part of the city including Eleonas. Most of the Arvanites were in a poor economical situation living in the outskirts of the city working in the fields of the rich Turks. Richer Arvanites called "Gagaraioi" were mostly leaving in a separate part of the city intra muros. Poor Turks on the other hand were living in the city when the rich ones being proprietors of vast land were living in their estates, many of them being situated in the area of Fleonas.

The Athenians were divided in four social classes depending their dependence and economical position.

"Archondes" was the highest class of the city's Greek population, included the members of one of the 12 families with a direct noble byzantine descendance. Members of these families were the ones to man the city's council.

"Nous entrâmes dans le bois d'oliviers : avant d'arriver au Céphise, on trouvait deux tombeaux, et un autel de Jupiter l'Indulgent. Nous distinguâmes bientôt le lit du Céphise entre les troncs des oliviers qui le bordaient comme de vieux saules : je mis pied à terre pour saluer le fleuve et pour boire de son eau ; j'en trouvai tout juste ce qu'il m'en fallait dans un creux sous la rive ; le reste avait été détourné plus haut, pour arroser les plantations d'olivier. Je me suis toujours fait un plaisir de boire de l'eau des rivières célèbres que j'ai passées dans ma vie : ainsi j'ai bu des eaux du Mississipi, de la Tamise, du Rhin, du Pô, du Tibre, de l'Eurotas, du Céphise, de l'Hermus, du Granique, du Jourdain, du Nil, du Tage, et de l'Èbre. Que d'hommes au bord de ces fleuves peuvent dire comme les Israélites: Sedimus et flevimus!"

François-René Chateaubriand Itinéraire de Paris à Jérusalem, 1811, Librairie de Firmin Didot Frères, Paris "Noikokyraioi" was made up by 24 families, landowners, controlling the commerce and manufacturing activities of the city and were known as the "heart of Athenians". That was the bourgeois class of the city.

"Pazarites" were involved in the commerce of olive oil and soap and the manufacturing and process of these goods. That was the middle/working class of the city.

"Xotarides" is the low class of the Greek population consisting mostly by the people cultivating the land and taking care of the estates of the rich Turks and Greeks. They were mostly living outside the walled city.

Economical and manufacturing activity in the city was divided depending the nuisance of it and it respectively positioned. Farriers, smiths and all the professions exercised by the Roma like hay basket and hat weaving were positioned against the western part of the walls near the "Morea Gate" (what the ancient Athenians called Dipylon) in the very base of the Iera Odos road. All manufacturing activities were scattered outside the walls, depending their basic needs, but the Iera Odos road became the most important axis of the city's producing activities attracting on its sides soap manufacturing, paper mills, pottery manufacturing and olive pressing. Tanning activities were positioned at the banks of Ilissos in order to have direct access to fresh water and keep a distance from all other activities as it was considered to be a great nuisance.9

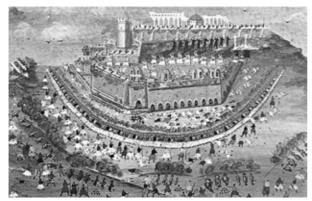
During this period the area is called as well "loggos" by the locals, a word of Slavic root meaning dense forest. The English poet Bernard Randolph, during his visit in Athens in 1675 describes the area as:

"the olive grove is so dense towards the western side of the city that it looks like a forest spanning six miles in length along the six and two in width".

At that time the economy of the city is dominated my the production of olive oil, olive oil is exported to Constantinople and Marseille and Athens has 48 olive pressing facilities most of them situated on what is known now as "Athinon Av." That then it was called "odos elaiotriveion" (olive pressing street). As it is calculated, Athens by 1800 Athens was producing annually 1200 tons of olive oil. The majority of the land of Eleonas belongs to Turkish landowners and the rest to noble Greeks. For example one of the wealthiest landowners of the area was Mehmet Ali who owned 2000 roots of olive trees and 50 plots of land for further cultivation.

Beyond the predominant plantations of olive trees and the first industrial activity that has installed in the area, being the most fertile part of the plain of Attica and taking advantage the of the waters of Kifisos, Eleonas started attracting new usages. The usage of the available water resources from Kifissos with the utilisation of more extended canal works leaded to the rationalisation land use, the river's water were used during winter for the watering of the olive grove when in summer were mostly used for the watering of vegetable gardens that expanded in the area feeding the city.

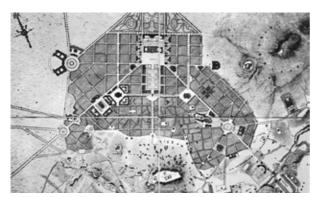
^{8.} Z.Ropaitou-Tsapareli, 2006, "Eleonas of Athens, the place and it people in the passing of time", Editions Filippoti, Athens 9. Nikos Moschonas, "The Topography of Athens during Byzantine and post-Byzantine period", National Hellenic Reseaech Foundation, www.eie.gr



The siege of Athens by Kioutachi Pasha (1826-1827) painted by D. Zografos, inspired by Makriyannis.



View from the palace facing West towards Eleonas, U.Halbreiter, 1845 $\,$



First project for the new plan of Athens by Kleanthis & Schaubert, 1833

19th CENTURY ATHENS, THE NEW CAPITAL

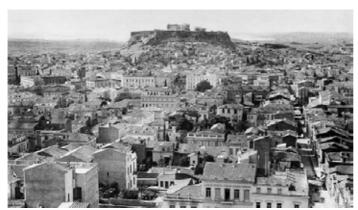
During the Greek war of independence from 1821 until 1932 against the ottoman rule Athens like the most of Greece was severely affected. The city was evacuated in 1827 because of fighting, so in 1830 Athens was giving more the image of a village than a city. Despite the deterioration of the local population, Athens and the other remaining settlements retained their original positions in the plain of Attica as they used to have since the antiquity. Equally happened for the network of road connections in between them that retained continuity in time.¹⁰

Eleonas for once more, being the main source of wealth for the city was heavily destroyed during the war, but soon it had succeeded to regain its pre-war importance and by 1833 it has an estimated 150,000 roots of olive trees.

When Athens was declared the capital of the new nation in 1833 it had a population of only 4,000 people, most of them in the original settlement situated under the northern slope of the Acropolis. That area constituted the nucleus around of which the new city was designed. With the arrival of the new king Otto, son of the king of Bavaria Ludwig I, it was directly assigned the design of a new plan for the new capital. The reconstruction of the city is based on the first proposal by Kleanthis and Schaubert that was already ready in 1833 with the new city being organised around a isosceles triangle, with the palace on the northern corner facing the rock of the Acropolis.

In 1834 Klenze revised the plan, positioning the palace on the western corner of the triangle in the area of Keramikos. Soon enough many wealthy Greeks mostly from the rich Phanariot community of Constantinople buy vast areas around Keramikos planning to built their mansions near the palace to come. Soon enough the plan is abandoned, as it was realised that the area was not the most suitable for the palace and the administration centre of the new capital, and that because of sanitary reasons, since the area was neighbouring the seasonal swamps of Kifisos and because of the fact that the areas were inhabited by the poorer communities of the city being situated closer to the sites of production, already existing on the axis of Iera Odos street. Finally it was the last revision by Gaerthner that was materialised, repositioning the palace on the eastern corner of the triangle. This let the space for the western side of the city to be further developed as the industrial centre and the area where the poorer part of the population were to be settled in the years to come.11

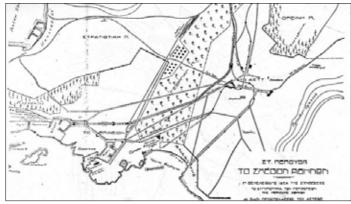
^{10.} Nasia Giakovaki, "Medieval and Recent History: A New Consciousness about the City of Athens at the End of the 19th Century", National Hellenic Reseaech Foundation, www.eie.gr 11. L. Kalivertakis, "Athens in the 19th century: From regional town of the Ottoman Empire to capital of the Kingdom of Greece", National Hellenic Reseaech Foundation, www.eie.gr



Centre of Athens, 1908



Pavlidis Chocolate Factory, Pireos street, 1840



St. Leloudas proposal the land use in Athens, Eleonas remains agriculral land, 1920

FIRST GROWTH

The new city grew fast with a regular rate of 7% per year, and very soon it had reached 50,000 inhabitants and new infrastructures were needed for the growing capital. First came the road connection of the port of Piraeus with Athens with the construction of Pireos street in 1835, and on the same year the Greek state makes its first plans to construct a new train line of 8,8km connecting the port of Piraeus with Athens, even though actual works actually start 22 years later in 1857 only to be finished in 1869. At the same time construction starts for the connection of Athens with the Peloponnese, opening in 1884. In 1881 Prime minister Koumoundouros signs for the construction of a new rail line of standard gauge in order to make Greece an important part of the commerce in between Europe and the East only to be changed in 1882 by the new prime minister Trikoupis who envisaged a railway system connecting internally Greece in order to stimulate evenly growth in the country. Finally the connection of Athens with the northern city of Larissa was finished in 1909. It is estimated that during the construction of the different rail projects passing on the eastern limits of Eleonas more than 30,000 trees were cut.

These important infrastructures for the city became a pole of attraction for the new industries to settle along the axis of the rail lines and in particular along Pireos street that becomes the first industrial zone of the country with the establishment of the first industries of textiles. flour-mills gunpowder. The most important of these first industries to be built on Pireos st are: Chemical industry Chropei (XPΩΠΕΙ) in 1883, the beverage Factory of Ivi (HBH) in 1884, the steam electric station of Faliro in 1903, in order to supply with electricity the growing needs of the capital and its new industry, and finally the municipal abattoirs of Tavros in 1914 and the oil industry of Elais (ΕΛΑΙΣ) in 1920.12

As a result of the industrialisation of the city, a continuous stable influx of internal immigration workforce arrives from other parts of the country in order to find employment, resulting to the continuous grow of Athens to the north in opposition to the general plan that was proposing a southwards development. Already by 1907 the population of Athens reaches 167,479 inhabitants and the needs for fresh vegetables in conjunction to the decadence of olive oil as fuel in traditional lamps and finally the rationalisation of the irrigation system of Kifisos river put extra pressure to the integrity of the remaining olive grove that was transformed rapidly in agricultural land, allowing the development of horticulture and the cultivation of vineyards. It was until the end of the 19th century that Eleonas has managed to retain in a great degree its natural appearance but already by 1920 only a few pockets of olive trees remain in the area.

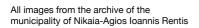
^{12.} G.Boudouraki and A.Gitzias, 2008, "Continuities and Discontinuities in a Changing Post-industrial Landscape", Athens, NTUA

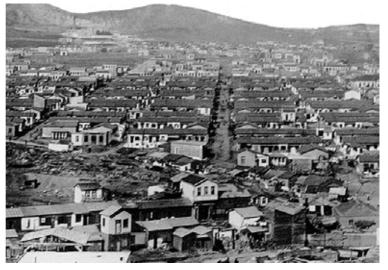




Characteristic images of Eleonas in the 20's, 30's, 50's







AFTFR 1922

In 1922, 1,500,000 refugees arrived in Greece with the population exchange between Greece and Turkey that followed the disastrous military campaign of Greece Asia Minor. From them, 300,000 arrived in Athens doubling its size. This event interrupted the orderly progress of the city and initiated the process of haphazard development. But it is not only the refugees that increase the rhythm of urbanisation in Athens. Internal migration in Greece towards Athens increased radically from 1922, and by 1928 the 43% of the population of Athens are internal immigrants, the 28.7% Athenians and the 28.2% refugees.

Refugee settlements were organised both formally and informally by the Refugee Settlement Commission (RSC) that was formed in 1923 by the government. These settlements were planned as satellite towns at a distance of minimum 4km from the centre of the city generating social segregation in-between the old and the new population, as well spatial fragmentation in the open space surrounding Athens. Very soon the planners lost control and despite the efforts of resettlement many of the newcomers started occupying pieces of agricultural or public land, beyond the city's edges forming slum agglomerations. The authorities tolerated these practices and most of these areas were legalized entering the city plan. In that way the official plan of Athens have grown rapidly including multiple expansions, legalising arbitrary built areas, which grew in any direction with no plan. Some of them grew as well on the outskirts of Eleonas, like Nikaia and Tavros providing settlement to local industrial units and only a few small pockets housing were formed in the inner part of Eleonas.

On the other hand the influx of refugees and internal immigrants revitalised the Greek industry, with the creation of numerous small size industrial units. In 1920, the whole country counts 33,704 industrial units operative, from which 92% are small businesses that occupy 1-5 workers. On 1930 the absolute number of industrial units in Greece has doubled to 67,892. A big part of these industrial units find their vital space on the borders of Eleonas. Especially most of the important new industrial units to start up during that period were established adjacent to the road network of Eleonas and particularly along lera Odos street and Pireos street, that by that time has become the industrial heart of Athens. In 1936 Greek industrial production reaches it's higher point and the first industrial units already start being positioned in the inner core of Eleonas.

By that time, the biggest part of Eleonas is dedicated in horticulture no being able to resist the great need for vegetables in a capital that is constantly growing. The area of Rentis in south side of Eleonas provides with vegetables both vegetable markets of Piraeus and Athens that was still situated in nearby Tavros. It was that production of vegetables situated in the core of the city that saved a big part of the population from famine during the Nazi occupation of Athens that lasted from 1941 until 1945.¹³

^{13.} G.Kanetakis, E.Beneki, G.Sarigianns, 2002, "Agios Iannis Rentis: the historical and urbanistic evolution", Agios Ioannis Rentis Municipality.

POST WAR GROWTH



Athens, inner city squatting, Dimitris Phillipidis Archive, 1966

The Second World War left behind a country in ruins. It was only after the end of the civil war that lasted until 1949 dividing the country in two, that reconstruction begun. During the next years a new great flux of internal immigration from the devastated periphery towards the cities and particular towards Athens took place. More than one million new dwellers arrived in searching for an affordable place to live, a stable job and a secure future. At the same time Greece had rebuilt its destroyed infrastructure. normalise once again the supply of the basic goods around the country and restore the operation of all the production units that have been halted during the war. These were the immediate challenges the new state had to tackle together with the built up of a long-term plan for the country's future.

Two main directions were proposed by different groups of economists. The first was supporting the construction of heavy industry in order to make the country economically independent focusing on the use of the money from the Marshall plan of post war help, boosting up the infrastructure and support heavy industry. The second plan connected directly the housing issue with the country's strategy for the years to come. It was proposing agriculture as the main axis of development, creating in parallel the bases for light industry that could support the sector of construction covering the main consumer need of the people at the time, housing. Hence after a civil war that has divided profoundly the population, the government knew they had to avoid big industrial concentrations taming in that way the rebellious potential of the working class.14

These facts led them directly into choosing the second plan advancing with low scale building system of the "polykatoikia", a derivative of Le Corbusier's Dom-ino, a multy-story, multi-owner building that in conjunction with the law of "antiparochi" became the solution for the growing housing need in its urban areas. The system of "antiparochi" is a type contract between the owner of a parcel of land with a small constructing company, in order to build a "polykatoikia" in his parcel. The owner after the construction of the apartment block gets a percentage of the produced housing units, and the rest is for the constructor/promoter to sell. Like that, with the minimum capital, risk and state mediation Greek cities were rebuilt in an almost automatic manner.

The government in that way promoted the reconstruction of the urban zones with the minimum intervention from its part, promoting local construction knowledge, meeting increasing housing need without a welfare programme, stabilising the large mass of the population that was guided towards private ownership, building like that a class of home-owners and micro-entrepreneurs who, while economically not privileged, would be sceptical the possibility of corporatism, sharing, and the demanding of social equality.15 The final result was a high degree of social cohesion at very low cost, high owner occupancy and a compact city structure with diverse land uses and a relatively unpolarised spatial distribution of social classes.16

So by the mid 1950's the 37% of the country's population was already living in urban areas, with Athens having the 50% of that urban population numbering 1,4 million inhabitants, that in mid 60's it was already up to 2,5 million

and by 1981 had reach 3,4 million. Athens was growing fast, changing by day fuelled by a powerful "democratic" bottom-up process, a first experiment of "infill architecture" with both its positive and negative aspects. This intense construction activity resulted to the formation of the modern city, with the disappearance of any kind of open space, with no provision of parks, public spaces sometimes no even schools. In 1962 due to the pressure of the vast uncontrolled (but expected and wanted) growth of the city it was decided that the town plan had to be expanded to include many of the new areas. Unfortunately town planning a reactive process was the only tool for planners since strategic planning did not exist yet.

In parallel to that, in order to boost up the industrial production, in 1953, the government passed the law NA 2687/53 promoting a frame of favourable regulations setting minimum restrictions on the location and environmental impact of new industrial units, facilitating the creation of new industrial areas in the country. Even though, it wasn't until the period 1960 - 1974 that Greece had a relative industrial boom. but that happened mostly because of the change of policies of foreign capital that opened subsidiaries in Greece, a country with flexible regulations and tax regime, a broken trade unions and cheap labour. As a result to that, in the period 1957 - 1973 the number of businesses in Greece rose from 394 to 1435, including a important influx of foreign investment that the economy needed.¹⁷

^{14.} P.V Aureli, M.S.Giudici, P. Issaias, 2012, "From Dom-ino to Polvkatoikia". Domus 962

^{15.} ibid.

^{16.} Enveco, 2012, "Atlas of Eleonas", Athens, Greece, 3rd edition 17. G.Boudouraki and A.Gitzias, 2008, "Continuities and Discontinuities in a Changing Post-industrial Landscape", Athens, NTUA



Smith plan for Athens, W.Smith and Ass, 1964



VIANIL detergents factory, Agias Annis st. arch. T.Zenetos, 1964

ELEONAS IN PERPETUAL TRANSITION

'49 - '65

During the period of the reconstruction Eleonas got to know a great industrial growth. The industrial areas around the area, like odos Pireos street and the area of Moshato near the port, started getting saturated putting pressure to their bordering areas of Eleonas. Soon enough the first industries are built in the inner core of the area reducing slowly the land used until then to horticulture.

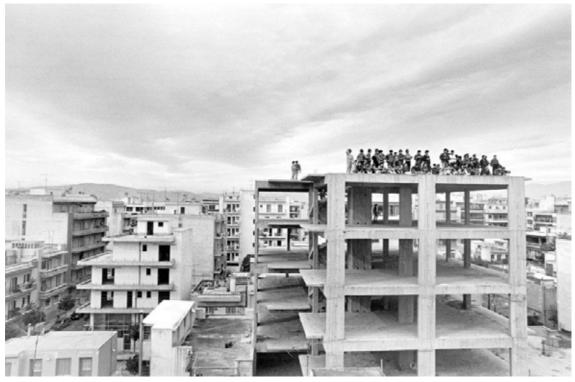
Already on Iera Odos street some very important industries have been settled before, like the Athenian paper mills and EVGA dairy products company, opening the industrial boom that took place in the 1950's. That first period of industrialisation of the area have seen the installing of some relatively big industrial units on the main axes traversing the area, like Petrou Ralli street, Kifisou Av. and lera Odos street only to follow by the settlement of numerous units of the secondary economical sector deeper in the inner core of the area, around Agiou Polykarpou street, Orfeos street and Agias Annis street. Most of these units were tanneries. metalworking units. and construction material stocking yards.

Hence, the gradual conversion of Eleonas into an industrial hub was inevitable. With its excellent position, in-between the big market of Athens and Piraeus, next to working class living areas providing it with workers, its rich aquifer and its cheep land, Eleonas was fully fitted for industrial use, mostly for small scale businesses connected directly with the current needs of the capital. This had as result its land use change and built up of its industrial profile - an industrial profile of few big industries, and many small medium/ small businesses, the backbone of the capital supporting many of its core activities, including construction that was booming in Athens making Eleonas' central position ideal.

'65 - '74

In the mid 60's a new period of transformation arrived for Eleonas. In 1962 the first transportation study of the capital was elaborated by the office of W.Smith promoting a new culture, that of the personal owned car. This new policy had a huge impact on the future of Eleonas. Already by 1956 the completion of the new high way running along the river on the east side of the area gave a new hard border, next step was the construction of various avenues that because of the central location of Eleonas convert the area in an enclave, blocking like that the diffusion of the construction boom beyond these new frontiers. At the same time Eleonas is situated on the most important crossroad of country's road system, that between Leoforos Kfisou, connecting Athens with the North and Leoforos Athinon connecting Athens with the South. This new fact gave Eleonas a new strategic advantage for the growth of a new industry in the area, that of road transportation.18

In parallel this newly formed enclave, found to be the perfect spot, for the city to position all different activities that were not fitted in the core of the city. By that time Eleonas started becoming the backyard of Athens. In 1959 the central vegetable market of Athens was moved at Rentis in the south part of Eleonas, and soon enough DEI (National Electricity Company) created a high voltage distribution centre and storage yard repeated by OTE (National Telecomunication Company) who settled it's own storage yard in the area. This tendency have started creating inert areas of great dimensions in the area, an act that was completed by the positioning of several bus storage yards serving the capital.



The making of the city, Kalithea, Manolis Baboussis, 1987

At that time even though Eleonas haven't lost it's industrial character, the city's fast growing on its perimeter made it clear that Eleonas was too close to the centre of the city for heavy industry to be positioned there, so in conjunction to the fact that new road network was created, new industrial units have started choosing new areas for their positioning along the main highway of Athens-Lamia and towards the Triasian plain where the chemical industry of the city has been already positioned. This gap was to be filled by, haulage companies who arrived accompanied bv warehouses wholesales taking advantage the cheap land of the area and the strategic position of the area in relation to the road network.19

'75 - '95

It was after the petrol crisis of 1973 that the world has started changing, capital management started changing its strategies and this couldn't leave Athens and of course Eleonas untouched. The cities changed economical position, capital pushed production at the peripheries, or even further in countries of lower cost to leave the cities for administration, finance, research and development and education. The industry in Greece have suffered heavily. Manufacturing, heavv industries. textile industries. chemical companies industrial tanning can not fight back the global competition and close down one after the other or they move their production units abroad. The rates of deindustrialisation in Greece reach very high levels in the years to come. In 1981 the total population of Athens has reached 3,4 millions and the general deindustrialisation and tertiarisation of the economy was followed by a stabilisation of the densely populated centre

of the city. Further tertiary development of the main road axis towards the wealthier northern suburbs of Athens led to a general decline of the centre and a further densification of new centralities created in the suburbs.

Eleonas, naturally follows the general tendency and most of the important producing units, either close down or fall into despair. Even though the severity of the situation, this tendency happens very slowly, Eleonas proves to be very resistant and the tertiarisation of the area had to wait until 2000 for it to become apparent.

Today the predominant activity in the area of Eleonas and particularly into its inner areas is the road transport of goods. Many other economic activities interlinked with haulage companies has developed. Car showrooms, car and especially truck repair services, wrecking vards, gas stations, car painters, car spare part suppliers, etc., flocked up the area. Finally the current process of transformation involves the construction of supra-local scale shopping centres and entertainment parks, as well as big office buildings along the edges of the highway network, pushing the area toward an extreme tertiarisation, the culture of consumerism, leaving behind a long and continuous history of production in close connection with the city's needs.

^{18.} Enveco, 2012, "Atlas of Eleonas", Athens, Greece, 3rd edition 19. G.Boudouraki and A.Gitzias, 2008, "Continuities and Discontinuities in a Changing Post-industrial Landscape", Athens, NTUA









From far Eleonas gives the impression that it consists of a complete element of different nature form bordering its environment. lts limits can be easily identified, mostly because of the fact that its texture differs radically from that of its surroundings. Another factor that makes it even more identifiable, is its own continuity of its composition. A composition that seems to take over all the space available, in most parts strictly bound by strong limits, in others just being directly in tension with the city.

Eleonas looks more like it was inserted than something that grew in the uniform and persistent grid of Athens - a grid that has spread in an insistent way and have dominated the plane of Attica over the time. Clean cut borders in the majority of its limits and a city whose structures (main roads) seem to cross its territory but without causing any structural modifications in the way it operates and it evolves. A diversion of the city's upper layers flowing through these crossing structures all the way until they touch again the city on the other side of the mass of Eleonas. It looks like there is a mutual respect in between the two entities - that of the city and Eleonas.



ADMINISTRATION - LIMITS

Eleonas although it has a common evolution and history through time and has a quite homogenous character along the vast area that occupies, as it can be seen in the map on the left is divided on administration level. Its jurisdiction belongs to five different municipalities, Athens (210ha), Tavros (120ha), Egaleo (155ha), Agios Ioannis Rentis (345ha) and Peristeri (50ha) applying until now different policies on the area, hindering the realisation of viable long term plans. The need of applying a common plan has been pinpointed, because of the common problems and challenges the area faces and since its incorporation to the city plan only in 1991, the area is viewed as a "whole". Still though, the administrative boundaries exist making it very difficult the implementation of any plan.

"The division of the area into five distinct municipal domains raised contradictions and disagreements about appropriate policies and the future of Eleonas as a whole. Municipalities tended to ignore the unity of the area and the need of comprehensive planning"

The limits of Eleonas are protected by presidential decree since 1995, protecting the area's character from radical changes in the anticipation of an implementation act that would designate the areas future. Although as it can be easily seen, the area in some parts extends outside of these limits like in its north part, belonging to the municipality of Athens, also in some parts past the limits of the area belonging to the municipality of Tavros and finally in a small area west of the limits of the municipality of Agios Ioannis Rentis. This study deals with the area within the administration limits of Eleonas but any findings are valid for the general area due to the similarity of the issues governing the whole.20



NFTWORKS

Eleonas due to its position is served by some of the most important axes of the capital, of supra-local importance on city and national level. One of the area's most important elements is the Leoforos Kifisou, Athens' main N-S highway and part of the main N-S axis of the country. Thivon Avenue on the West side and Pireos on the East side of the area define the limits of Eleonas together with Leoforos Athinon Avenue in the North side, one of the three axes together with lera Odos and Petrou Ralli that intersect perpendicularly the main body of the area. The area is also served by two train stations on the passing main N-S rail line of the country at Agios Ioannis Rentis and Rouf, and a metro station named after the area in the intersection of Agias Annis and Iera Odos.

"Even though train lines and highways constitute links of the city with the rest of the world, yet they also construct barriers in the neighborhood level. So the dual character of these elements is the high connectivity in the national scale but low accessibility in the neighborhood scale." ²¹

Besides the major, mainly peripheral highways of Eleonas, the local road network in the inner part of it is completely insufficient. The narrow streets with many dead ends diminish the accessibility of the area while the middle scale road network is sparse. It is worth mentioning that from the whole area of Eleonas the road network occupies only 71.3ha or 8% of the area.

The middle scale road network of Eleonas consists of Orfeos Street, Agias Annis Street and Agiou Polykarpou Street. Orfeos Street with its east west orientation, is a 6.5 meters wide two-way road with sidewalks and poor road surface condition. The haulage companies of the area generate heavy traffic congestion at working hours and the circulation of lorries and other heavy vehicles exacerbates severely the condition of the road surface. The axis of Agias Annis Street can be described as the spine of the area. It is perpendicular to Orfeos Street and connects with Athinon Avenue moving southwards connecting with lera Odo and Petrou Ralli, creating the main entries to the inner core of the area. It is also a heavily congested two-way road of limited width, but lately extended work have started on the widening of this important axis for the area. Finally, Agiou Polykarpou Street lies between Iera Odos and Orfeos Street. It is a 9 to 11 meters wide two-way road with better road surface conditions.

^{21.} E.Kotsikou, 2010,

[&]quot;De -fragmenting Athens, Drosscape as a Device for Integration Between the Metropolitan and the Local Scale", Delft, TU Delft.

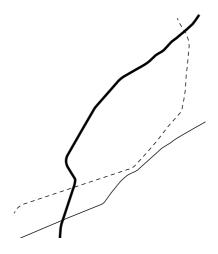


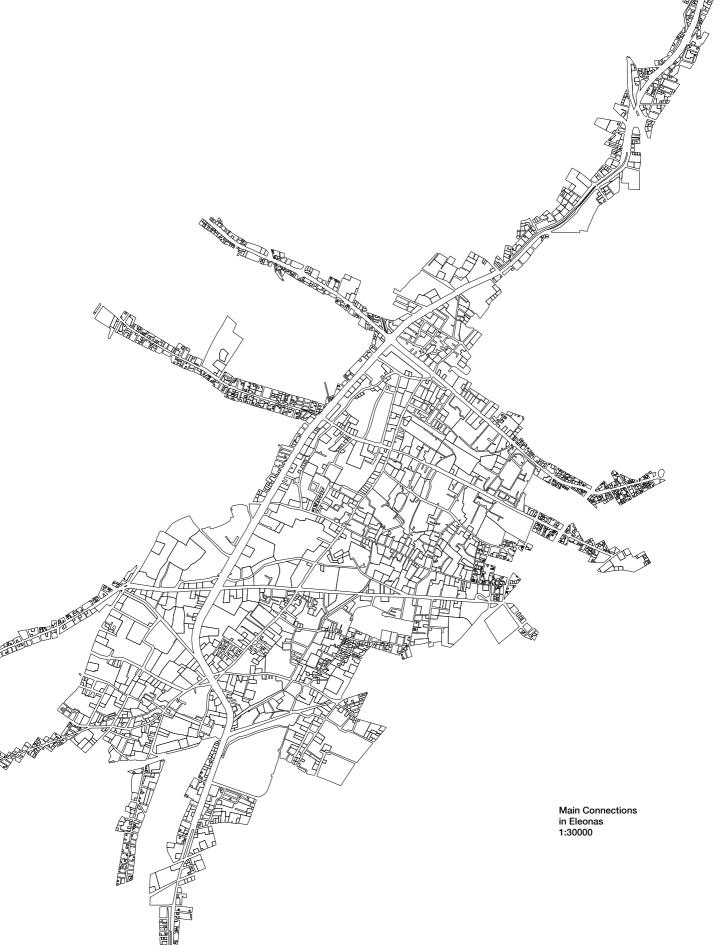
BOUNDARIES - BORDERS

"Edges come in two forms, as borders or as boundaries. This is an important distinction in the natural world. In natural ecologies, borders are the zones in a habitat where organisms become more interactive, due to the meeting of different species or physical conditions. The boundary is a limit, a territory of different species does not stray... boundary is a guarded territory... it is the borderline where the works of natural selection is the most intense, borderline is full of time. By contrast the boundary is a static space in time, because there is less exchange. In the twentieth century, planning tended to define and enshrine boundaries: it created static territories in the cities, which diminished exchange between social, economic, religious and ethnic groups. The technologies of transport, gated communities, the articulation of vertical buildings, all tended to seal off and isolate differences" 22

Eleonas is a very good example of what Richard Sennett describes. Physically is well defined by three strong axes that run parallel to its main body, these are the river of Kifisos on its western side that has converted in its greater part in the Kifisos highway, the main rail line and Pireos street. These three rigid impermeable structures construe the basic boundaries of the area, creating obstacles that block the passage, contributing considerably to the discontinuity of the urban fabric between the city and Eleonas. Especially the highway of Kisfisos with its elevated structure, elides completely Eleonas from the level of its natural soil and its visual connection with the other side, creating vast inert zones dominated by cars moving in high speed and spaces laying in-between two different realities without connecting them. These inflexible boundaries include as well some landmark building complexes that because of their size and function act in the same way, like the central market of Athens in the south limit of Eleonas and the Agricultural University on lera Odos street.

On the other hand an other type of limit exist in some areas, especially in the eastern part of Eleonas, in the areas of Votanikos and Tavros where the city has overrun the natural boundary of the rail lines taking over space from the natural territory of Eleonas. This has happened for many reasons during the expansion of the city, as it will be analysed later, and could be an excellent opportunity for the creation of a more interactive borderline between the city and the area of Eleonas. Here, even though the two grids come in direct connection, they do connect, but with difficulties. The streets do not continue naturally from one side to the other, except from the main arteries, resulting to another type of boundary, vague, imprecise, where a more gradually blended interface area is found, where discontinuities are not immediately perceptible, but do exist continuing that enclosure that transforms Eleonas into an enclave in the very centre of the city it belongs to. Fortunately this type of boundary in-between the two different grids do not completely isolate the neighbourhoods from both sides, creating a transition area that accelerates locally, both functionally and morphologically, the process of integration and unification of the urban edges of Eleonas.23





CONNECTIONS

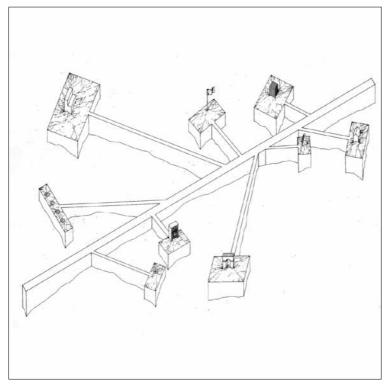
It is because of the nature of these two types of boundaries that enclose firmly Eleonas and give him the character of an enclave, the area lacks of direct connection with the areas that surround him. Even though, its introvert nature, apart the existence of the Kifisos High way and Pireos street, Eleonas is traversed by three of the most important East -West axes of Athens, Leoforos Athinon Av. that consists of the natural continuation of the highway towards the southern part of the country, and two of the most important connections of the centre of Athens with the western suburbs. lera Odos st. and Petrou Ralli Av. Hence. Eleonas is one of the most well connected areas in Athens with excellent metropolitan and national connections.

> Furthermore, these three transversal axes with their clear supra-local character attract urban functions of metropolitan influence that act in two ways for the area. Firstly, because of the fact that these roads are crossed by the pedestrians with great difficulty, they become disconnecting elements spanning from the one side of the area to the other, cutting it in different parts at local level, functioning as barriers to local mobility.24 Secondly, as they are highly visible and in a strategic position, they mostly carry buildings and functions of high supra-local importance and different character than in the rest of the area. In that way they act as a continuous wall, hiding from the passing view the inner character of Eleonas. Finally because of the lack of connections of these roads with the middle scale network of the area (only Agias Annis st. and Dimaraki st. connect with them) transform them into continuous traversing structures with no clear association with the local networks and the area. Thus these axes seem to act as a membrane holding the inner mass of Eleonas, dividing it in parts, and in parallel cloaking it from external interaction.

^{22.} Richard Sennet, 2011, "Borders and Boundaries", Living in the Endless city: the urban Age Project by the London School of Economics and the Deutsche Bank's Alfred Herrhausen, Phaidon Press. NY

^{23.} Enveco, Atlas of Eleonas, Athens, Greece, 3rd edition, 2012. 24. ibid

Eleonas, an archipelago



Hans Dieter Schaal About The Spatial Experience Of Cities, 1970s

Looking at a map of uses of Eleonas it is very hard to understand the logic behind the positioning of uses and how the area ended up to reach such state of fragmentation; become a real urban mosaic of elements that seem to be non connecting one to an other, with opposite need and competitive natures. When each land use is studied separately it is found no continuity whatsoever, only scattered elements in the space of Eleonas. It really feels like an archipelago where each activity is dispersed in a sea of foreign objects. In some cases certain linearities become apparent, but still are not enough to explain a phenomenon. Eleonas is going through its latest transition. from production, to de-industrialisation and from there to tertiarisation, leaving its marks to the territory and its spatial coherance.

"The term de-industrialisation is not enough to explain the current tendency of the area, mostly because Eleonas belongs to spatial sub-category of the metropolitan nucleus of Attica, where around the bigger units of industry, a diffused mesh of smaller industries and wholesale trading was developed in order to serve them. That means, that even until now the character of the area is strongly determined by that small-scale secondary manufacturing (μεταποίηση) and the activities that follow it naturally. The problem though comes to the fact that the greatest part of this kind of activity is not officially registered, so it is not visible, or taken into account from the official economical policies. The numerous small units and their arbitrary spatial establishment, haven't let yet to have a clear image of the totality of uses in the area"25

It is this strong link between the main industrial units and its supporting industries and wholesalers that have formed the mosaic of Eleonas, where each type of use was scattered in the area without any apparent continuity or logic, as it would be expected by an organised industrial area under the basic principles of zoning. Here, in an almost natural, evolutional manner, the different activities were self-positioned in the space available depending their needs, the proximity to their dependants and the road network, optimising their functions forming a strong coherent web, a holistic system, that is difficult to study only by looking at singular activities. Like a beehive, Eleonas operated in an appearanceonly chaotic manner, hard to understand, with its own rules and systematics.

Spatially, this evolutive and operative sytem, in conjunction with the complete lack of planning and supervision form the side of the state, has given Eleonas its character of an non orderly mosaic, an archipelago of different uses, that seem to be incoherent. A perceptual incoherence that comes as a result to the spatial fragmentation of Eleonas, shaped by the mix of different uses, volumes and types of buildings and materialities. This spatial fragmentation is enforced by a strong spatial discontinuity; consequence of a particular network of connections, often disrupted by the main arteries and rail lines that intersect the body of Eleonas, combined with an inadequate medium scale road network in the inner part of the area.

In this chapter is not intended to just show the different uses separately, but mostly understand the tendencies during the last transition the area is going through, being in its last stages right now, with the exit of the last operating producing activities and the gradual tertiarisation of the area, and pinpoint the important territorial elements that strongly characterise this part of the city.

^{25.} G.Boudouraki and A.Gitzias, 2008, "Continuities and Discontinuities in a Changing Post-industrial Landscape", NTUA, Athens.



INDUSTRIAL ACTIVITY

Certainly the economical changes that took place in a global and in a national scale for Greece in the decades of the '80s and the '90s still have their effects to the activities that are situated in the area of Eleonas. It was the same period that in Greece the debate have started on whether industries should continue to exist in the very core of the city. The two first industries the have paid the price were ETMA and the Athenian paper mills that together were producing the 50% of $\mathrm{CO_2}$ and 60% of the $\mathrm{SO_2}$ emissions of the area who have entered since then in special environmental monitoring.²⁶

It wasn't until the beginning of the 2000s that the first historic industries of Eleonas have started to close down, one after the other, including, ETMA, Keranis tobacco and the Athenian paper mills, all situated in the very core of the area making quite obvious the arrival of a new transition. On the other hand, the food industry that was created after the war was not affected by the crisis, so until now dominates the area's large industrial complexes, like Papadopoulou biscuits, the Athenian brewery and Delta dairy products.

At the same time the area is still dominated by a small-scale industrial production, in several sectors like metal products, engine construction and repair, appliances and plastics. The traditional industrial activities of the area such as soap making, ceramics and tanning have almost completely moved out of the area, due to the change of legislation for Eleonas, the change in the market and the bad organisation and management of their vital space they needed.

The urban anarchy, the lack of vital space for rational organisation and modernisation of the productive process, the chaotic traffic and lack of infrastructure have pushed away the healthy and legal small-industrial units, promoting development of low cost activities with negative consequences for the area's economy and environment.²⁷

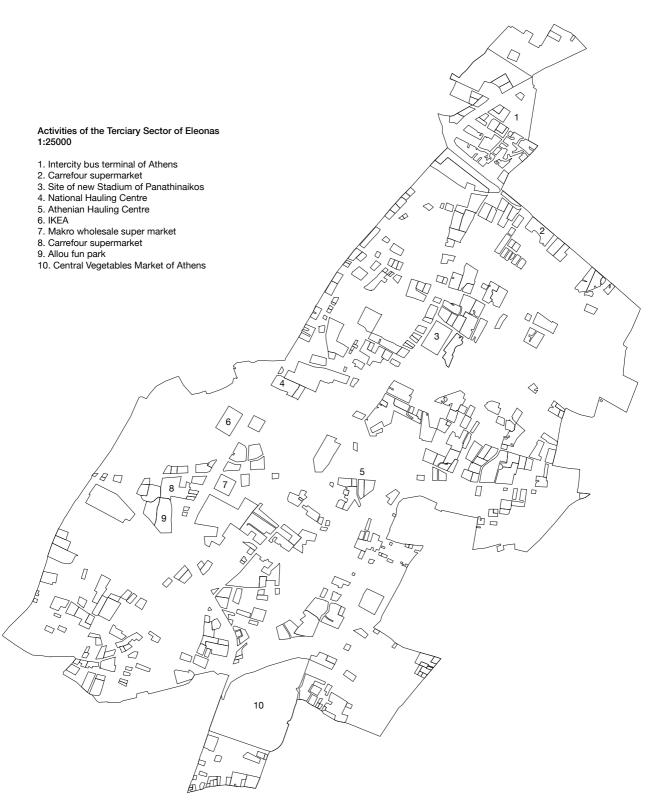
Nevertheless the only sector among small businesses that sees growth currently is the one related with vehicle, transformation and repair, taking advantage of the strategic positioning of Eleonas in relation to the main road axes of the capital and the growing sector of hauling that is now dominating the area.





26. Hellenic Ministry for the Environment and Public works, "Attiki S.O.S", http://www.minenv.gr

27. G.Boudouraki and A.Gitzias, 2008, Continuities and Discontinuities in a Changing Post-industrial Landscape, Athens, NTUA



TERTIARY SECTOR









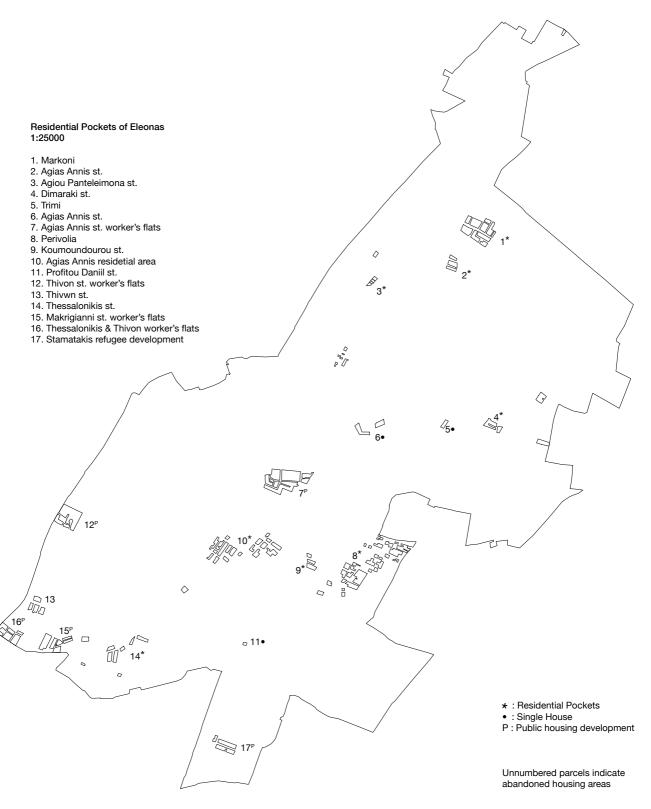
Carachteristic tertiary activities of Eleonas

Due to the fact that Eleonas is situated next to the most important transportation axes of the capital, it was normal to be transformed, from a non-dense area of non-competitive industry to the centre of transportations of the city. The existence of cheap, vast areas that were becoming more and more available with the withdrawal of industry, in addition to the fact that such spaces do not exist elsewhere in Attica basin because of the fast and dense expansion of the city, made Eleonas the ideal site for them to be installed. In the 80's in the area existed around 320 hauling companies, when right now they must be around 1000, but since a lot of them do not operate with legal licence it hard to know the exact number.28

The transformation of an area like Eleonas with a poor medium scale road network into a hauling hub, have augmented severely the problems of traffic creating problems of the healthy operations of the remaining industrial sector. The initial balance in between the transportation sector that arrived in Eleonas to support the activities of the secondary sector has been inversed with the transportation sector dominating the land use and road network.

Currently the latest transition that has started the last years is also in favour of the tertiary sector, and this time consumption. The freed parcels located on the main axes are taken over forming large scale supra local poles of consume and leisure. Already the "west of the river" side of Eleonas is being transformed with the arrival of IKEA, Carrefour and Allou Fun Park and the next area to change is that of the old factory of ETMA with the arrival of the new stadium of Panathinaikos and the new functions that will follow it.

28. L.Wassenhoven, 1992, "Urban organisation and reform of the area of Eleonas, Research program", NTUA, Athens.



RESIDENTIAL POCKETS









Carachteristic living pockets of Eleonas

In this vast archipelago dominated by industrial and transport related uses are to be found 17 housing islets, one disconnected from the other, each one developed in a particular way, for different reasons adding an immense richness in the area. These residential pockets that still survive in Eleonas are of a total area of 30Ha and constitute only the 3.33% of the total 900Ha of the area and are scattered around the area of Eleonas almost being hidden inside that mass of industrial buildings. They actually remain physically apart from each other having more affinities with the production activities that surround them. Even though these pockets where all developed under different circumstances that attracted dwellers in this area of production. could be arranged in three categories, the single scattered houses, the residential pockets and the public housing developments.

The scattered houses that can still be found in Eleonas like in Agias Annis (6) or in Profitou Daniil st. (11) are what has survived from the previous phase of area, when it was mostly agricultural land, when houses and mansions where to be found in-between cultivated land that now it has been converted with time. The majority of the residential pockets that have been developed in the area, like the Markoni (1) the Agiou Polykarpou st. (3) or the Koumoundourou st. (9) were mostly developed during the first phase of the installation of industry in the area, when the workforce was installed closer to their jobs, building small residential pockets that now in some cases like Koumoundourou st (see photo) are encircled by other uses disconnecting them from the rest of the area. Finally we have the large complexes of public housing developments that like the Stamatakis (17) that was put in place in 1922 to house refugees from Asia Minor. The rest were built in the late 50's with exception of the Makrigianni public housing that was built in 1971 to house again immigrants, this time from Romania and Armenia.29



OPEN / PUBLIC SPACES









Important "open" spaces of Eleonas

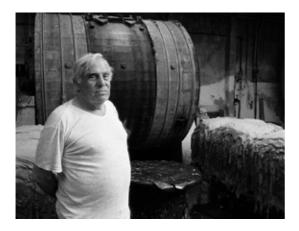
Eleonas is one of the only places of central Athens; where it can be still found in great amounts, open non-built space. Still these spaces are not always obvious how to find them, or access them since they are either private and most of the times, well fenced if not walled to avoid trespassing or squatting - or if they are one of the few public spaces in the area they are well encircled by other elements making them hard to find. As public spaces we could only point in the two small parks of the area, the one in the south part of Agias Annis st. and the Iroon park adjacent to the rail lines at the easternmost side of the area. They are both located near living areas, but they are underused and poorly maintained. Then there is always the botanical garden of the Agricultural University that even though it is fenced, it can be visited during daytime, and the park of Plato's Academy that even though it is located outside of the core area of Eleonas it still affecting it, being the only open space on the North side of the area.

Now in the open non-built spaces, more elements can be included, such as the Rouf rail station, the "Naval Base" of Markoni, the training grounds of Olympiakos FC or the "Spyros Yalabidis" stadium of the local football team of Fostiras. These are certainly neither purely public nor they can be called open, and it is a dangerous generalisation to include in a single category, study elements of such different qualities, but still, are elements that attract people to the area of different nature than the ones that already live or work there and the fact that are elements that belong to a single proprietor and have a clear program, makes them strong potential actors in the transition could would potentially happen in the area.

29. Enveco, "Atlas of Eleonas", Athens, Greece, 3rd edition, 2012.



PFOPI F OF FI FONAS







Photos of the author, 2012 and the exposition "the people of Eleonas", of "the committee for the rescue of Eleonas", 2007

During the census of 2001 the permanent population residing in the area was 14,568 individuals. This population is divided in all five municipalities that constitute Eleonas, but the majority live in the limits with the municipality of Agios Ioannis Rentis (44,5%) and the municipality of Athens (32,9%). What is more important to study for Eleonas is the socioeconomical profile of the people residing there, as well as the existence of the foreign populations and especially of economical immigrants. Based on the data from 2001, the greatest part of the population (32%) have finished primary education, a 14% have finished high school, when only the 10% are graduates of Universities and higher institutions. Being a provider of cheap housing near the centre. Eleonas has become a pole of economical immigrants making up the 17% of the total population. From which a 7% comes from Albania, and an 8% from Pakistan, Afghanistan and Irag - as well a numerous Roma population that it will be examined further on - building the current mosaic of the local population.

Economically speaking the 57,1% of the total population is employed in the tertiary sector, in the big shopping centres of the area with supra-local character and the local shops serving the area and a considerable percentage in transportations that dominate the area. A 35% works in the secondary sector, in the numerous small-scale industrial units that still exist, focusing on construction, tanning, repairs shops and manufacturing of basic goods and less than 1% is to be found in the primary sector. The 34,62% is working as an unskilled worker, an 11% as micro-contractors, 13.6% as independent business owners, 13,22% as skilled workforce and only a 4,5% are in higher management positions. Finally unemployment in 2001 was 11% but regarding the high growth of unemployment of the last years in the country, it can expect that this number has grown significantly.30



THE ROMA POPULATION









Evolution of Orfeos street Roma camp (3)

30. G. Velegrakis, 2009,

"Contemporary urban growth and social practice, the example of Eleonas of Attica", Athens, NTUA.

31. G.Boudouraki and A.Gitzias, 2008, "Continuities and Discontinuities in a Changing Post-industrial Landscape", Athens, NTUA

During the last years the general area of Eleonas has been transformed into an urban space of ambiguous characteristics, liquidity and volatility have become the main ingredients of an area that awaits further evolution - its next transition period. In this borderline of a new change of identity, Eleonas has been converted into a storing area of great dimensions. In this way, its multiple enclave became the perfect territory for new populations, this time foreign immigrants searching refuge, to settle.

One of the most characteristic of these groups is the Roma of Albanian decent that arrived in Eleonas in during the 1990's forming the first settlements in the empty parcels of the area. But it was not only the available space that attracted these groups. Eleonas proved to be an excellent ground for a group of an "illegal" status, justifiably non-trusting the authorities searching a camping ground that couldn't be found if they didn't want to be found. The labyrinth of Eleonas with its multiple enclaves became their new home. Flexible and mobile by culture the Roma populations squatted well-selected parcels away from view and when they were dislodged, they just had to move to a next nearby parcel. This led them to a built up of strong links with the area, even though being many times in opposition with the local companies and inhabitants that always looked on them as a potential hazard.

Until lately a large camp still existed in Orfeos street but it was dislodged during the summer of 2012 when a part of it took fire as a result of illegal melting of metals. Still two smaller settlements exist in Salaminas street and in the crossroad of Kifisou Avenue with Pireos Avenue as well as several smaller nucleuses scattered in the general area of Eleonas that should be normally reinforced after the evacuation of the camp of Orfeos street.³¹



IMPORTANT FI FMFNTS

Plato's Academy although it lies outside the core area of Eleonas is a very important historical site for the area, being directly connected with the memory of the idealised image of the holy olive grove lying on the banks of Kifisos River. It is one of the most important archaeological sites of Athens, but still very underdeveloped. It is situated on the very site where the Academy of Plato was in the antiquity and is currently organised in a park-like archaeological site, with obvious the marks of neglect mostly because of the fact that nowadays this part of the city is not the most attractive, lying on the borders with the industrial zone of Eleonas.

The Agricultural University of Athens is one of the most important poles of higher education in Athens and the most prestigious institution of higher education nationwide related with the study of agricultural and animal production. It's position in the very entry of Eleonas on its most historically charged road has an extra importance being a point of reference in the area, reminding the until recently strong connection of the whole area with agriculture.

The 3rd cemetery of Athens, one of the biggest of the city, being situated on the western borders of Eleonas, in the municipality of Egaleo, although its nature as a cemetery, still is very important being the biggest green area of this part of the city.

- 1. Acropolis
- 2. Plato's Academy
- 3. Agricultural University of Athens
- 4. 3rd Cemetery of Athens
- 5. Central Market of Athens
- 6. Kifisos River last uncovered part
- 7. Profitou Daniil Stream

The Central Market of Athens, on the south side of Eleonas is one of the most structural objects of the area. This is because of its size being the biggest parcel of the area, by its strategic position in-between the railway lines and the Kifisos Avenue, but mostly of its function strongly characterising the activities of that part of Eleonas.

Kifisos river is one of the main characterising elements of the area, and the main reason why this area had a different evolution that the rest of the city. The river during antiquity was a river-god, son of Oceanus and Thetys and father of Narcissus by the Nymph Liriope. Kifisos is the main river of Athens, flowing through the west/central part of the Attica basin carrying water from Parnitha, Penteli and Egaleo mountains all the way to Faliron bay in Saronikos gulf. It is of 24km long with a catchment area of 400km². The river since 2004, when the last part of the construction of the new road connection to Piraeus have finished, lays underneath the elevated highway for the biggest part of its length, having lost its character as a river looking more like an empty canal. Fortunately there is one single part of the river that remains open from the junction of the river with Agias Annis st. almost until the junction with Pireos st. keeping the memory of a flowing river still alive.

Profitis Daniil stream is an old tributary of Ilissos river, flowing in the core area of Eleonas being now derived into Kifisos river near its junction with the rail lines. During time it has followed the usual pattern of hydromorphological degradation, though canalisation and coverage, but still a big part of it is still open. The stream faces grave problems being the receiver of all kind of uncontrolled industrial sewer, polluting in that way Kiffisos were it ends and the local groundwater resources.



ACROPOLIS







First photo of Frédéric Boissonnas, 1908 All other photos of the author, September 2012

Because of a merge of different reasons, like the flatness of the soil, the proximity to the centre, the low density of the built environment and the low permitted height of buildings, Eleonas is strongly characterised by a remarkable view of the Acropolis of Athens. This is one of the most important characteristics of the area, enjoying still a long forgotten quality for the central parts of the city, that have lost that direct connection they used to have with the Acropolis. It's a view that structures the area, and the way we perceive it, an immaterial limit, a correlating attractor, which redresses our views when we are facing towards its direction.

In Eleonas, we can easily conceive the depth of time of the area, a rhythm of long duration that normally people living in big cities tend to loose, living the present, not being able to realise the numerous times that the world has changed and still changes faster that someone would expect throughout the duration of a human life. Here some of these traces are more visible than others but it's that striking uninterrupted view towards the Acropolis, in conjunction to the special spatial characteristic of the area, that makes it very different from its uniformed surroundings. Eleonas itself becomes and island of perception of our built environment. It provides us an uninterrupted view towards to what we understand as perfect being first filtered by what we feel uncomfortable with, still not understanding it -not wanting to understand it- becoming almost invisible when our eyes focused on the Parthenon.

Perception



Porosity.

Porosity is the fraction of space in which displacements can take place. Hence is the relation in between the non-constructed surface, for example the road surface, the squares, the green spaces and the total surface.

Connectivity.

A high porosity doesn't always correspond to a good mobility. For example, when the pores (non constructed spaces) are not connected in between them. Barriers prevent connectivity and create enclaves. Connectivity means the possibility of moving from one pore to another, in the urban fabric, the agricultural lands or even in between the different directions of the highway. A high porosity doesn't guaranties a high connectivity but the porous city can surely be the opposite of the enclaved city.^{X1}



VISIBI F - INVISIBI F

Observing Eleonas from high above in comparison to its dense and repetitive surrounding urban environment confirms the general impression of a scarcely built area, with a high percentage of free spaces. Although the true image negates this feeling, of a non-built land, of high porosity and connectivity, that someone would naturally expect. The reality is quite the opposite. The void, even though it can be felt, is not always something that obvious, and the built although it is directly visible fells like a thin layer, an opaque screen, just impeding the view where it has to. This double extreme creates this atypical urban landscape that dominates most of Eleonas, giving him his character and this strong feeling of homogeneity despite its fragmented nature.

Leaving behind one of the main axes, following one of the roads that traverse it, like Orfeos, Agiou Polykarpou, or Ploutonos, penetrating the inner core of the area, the first impression is that of a very strangely dense area. The two main aspects that characterise the visual perception of the area are the proper geometry of the streets, being narrow and curvilinear: streets that haven't undergone much change since the time the area was an agricultural land, and the high, mostly opaque walls that define the spatial limits of the area. These two impede and restrict the visual fugue, creating a strong sense of enclosure. The streets feel like rivers, and this feeling combined with the narrowness of the streets and the heavy traffic during daytime, charge the remaining space and the visual effect becomes evermore accentuated.

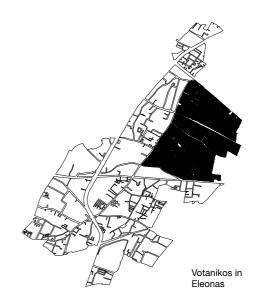




THE EXAMPLE OF VOTANIKOS

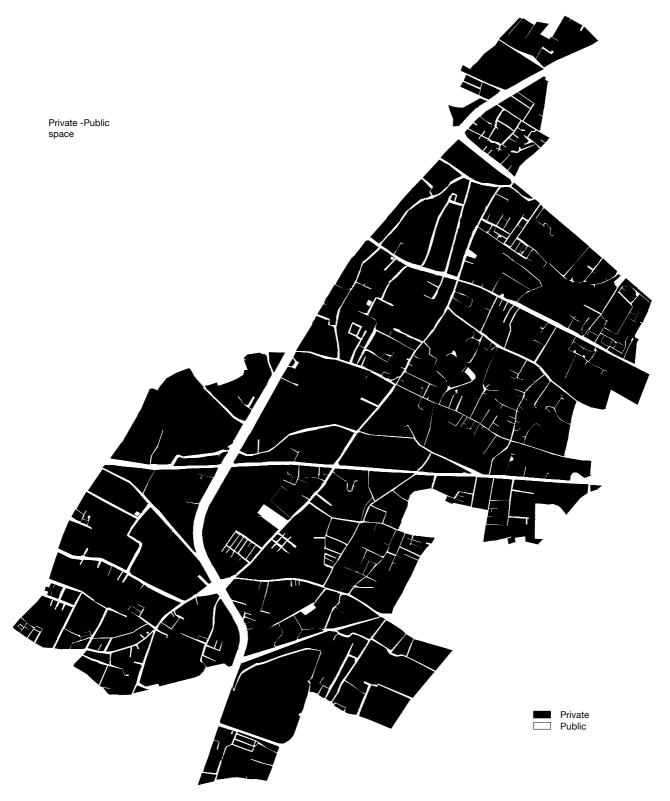
In order to understand better these specific aspects of the area, a particular example was taken and studied, it is the part of Eleonas that belongs to the municipality of Athens. Votanikos as it is known, takes his name from its most important element, the botanical garden that now it is an integral part of the Agricultural University of Athens. Being in the direct borders with the central parts of Athens, Votanikos is and ideal example, as it combines both hard limits like Leoforos Athinon in its northern side, but also more vague limits like the ones in the diffusion of the grid of Athens with that of Eleonas and finally it is traversed by some of the most characteristic axes of the area like, Iera Odos st. Orfeos st. and Agiou Polykarpou st. having in parallel an intensified system of smaller streets most of them resulting in dead ends.

As it can be seen clearly in the figure-ground map, Votanikos is an area characterised by a high porosity the way Viganó explains it, "a large fraction of space, in which displacements can take place"31 but also from a very low connectivity, result of the geometry of the streets, its numerous dead ends, the great size of the parcels, but largely because of the domination of the walls, most important element of the area, as it can be seen in the second map depicting their positioning. Obviously, this systematic appearance of these high opaque walls, close hermetically, physically and visually, the space they define, creating enclaves. These entities put together, built up a tight mosaic made out of uninterrupted enclaves shaping the built environment of the area. Viganó in the definition of connectivity states: "A high porosity doesn't guaranties a high connectivity but the porous city can surely be the opposite of the enclaved city."32 which surely here is not the case, making it us quite clear that Votanikos, hence in concurrence Eleonas is a special case being formed by a mesh of internal enclaves.



Some times, as it can be seen in the map of walls these walls do not encircle completely the parcel, most of the times staying open in the inwards parts of it, where visual impediment is not necessary since there is no road. These inner areas, that sometimes are different parcels/activities, even though are not heavily walled they do retain their clear and well-defined spatial differentiation that can be perceived by the user by the existence of transparent walls, buildings limits, or just the positioning of vegetation. Especially in the area where the Athenian grid meets the grid of Eleonas, in-between the very end of Orfeos st, and Agiou Polykarpou st, we can see that there is a transition area, where the limits are not needed to be expressed by walls as the buildings from the side of Athens do act as walls with their continuous expression of their

^{31:} Secchi Bernardo / Viganò Paola, 2011, "La ville poreuse, un projet pour le grand Paris et la métropole de l'après-Kyoto". MetisPresses, CH.



THE WHO! F

Taking the observations made for the area of Votanikos and extrapolating them for the totality of Eleonas (as they can be taken as valid for the largest part of the area) we can assemble an image how it is to move in a place so vast of such characteristics creating a general idea of how does this area is constructed spatially. The domination of the high walls in conjunction to the geometry of the medium scale street network, transform the area into a labyrinth where the general sense of disorientation prevails. At the same time the complete absence of public spaces, as it can be seen in the schema of public - private, accentuates the linearity of the available space where someone can move.

This situation though is not completely stable, another important constant that has to be taken into account, is time. Eleonas like every place dedicated to production has very specific times when it operates or not, when it is more or less busy, but what makes him special is the intensity of this temporality. Eleonas has three daily phases. In the very morning in the area prevail a very intense traffic jam, especially in the roads where most of the hauling businesses are, like Orfeos st. and Agias Annis st. where numerous vehicles of large size take over the gorge like streets emphasizing the already strong effect. During the day there is a constant flow activity in the area, giving an image of an active place, when during the night any activity is completely halted. Finally during the weekends the area appears to be completely deserted and it is only some Roma who live there that can be seen in the streets. All the gates are firmly closed, and no opening whatsoever let our view wander in the inner parts of the parcels. It is during this moment that the combination of emptiness of the streets and the firmness of the opaque membranes protecting their cells that give a strong feeling of absence in the area. It feels like the time is stopped, like anything could happen, the city feels far away.





NIGHTTIME IN ELEONAS

When night falls Eleonas transforms in something anew.

The fragmentary nature of its character becomes obvious, contradicting its hectic daily visage. The absence becomes omnipresent. It's the lack of any obvious activity. The normally open gates, are now closed adding up to the opaqueness of the continuous walls that protect fiercely their containers. Light becomes scarce, as there is no adequate public lighting, and those who exist are to be found only in the main roads. They become islands in an dark invisible world, where there is no background lights from the buildings since they are inactive during the night. The roads feel narrower and hostile and walking them, feels like walking from lamppost to lamppost, searching visibility. Some businesses for reasons of security have installed on the public space in front of their premises strong floodlights interrupting the calm sequence from dark to light; at the same time adding up strongly to the essence of absence showing in an indiscreet manner the motionless of their small area they are destined to uncover, the absolute stillness of time.

Nevertheless Eleonas is not empty, people live there, but still, when passing from one of the residential pockets, even though they are better lighted, this essence of absence remains. People are not to be found easily on the street, they remain in their houses where security is guarantied avoiding the exterior darkness. The distance between one pocket to the other feels enormous, and becomes more than obvious the absolute lack connection in-between them.





Night photography at Eleonas, Ioanna Katsarou, May 2007

Eleonas is not an easy territory when darkness falls, the area feels bigger and the already strong feeling of being in a labyrinth becomes accentuated, neither the direction nor the potential exit is obvious - everything, every course resembles a dead end. But still, the ubiquitous subtle lights of the city surrounding this darkness indicate, without giving direction, that there is a more welcoming place, out off there. A place conforming to our urban needs for light and perpetual activity; the city as we know it, that even though is all surrounding, it appears to be far away.



In the process to understand better Eleonas, a very important step is to try to comprehend its proper morphology, how this area came up to have this particular form, still very linked to the morphology of its previous state as agricultural land and the history of its gradual transformation, into an area of predominantly industrial character and furthermore into an area of a vague mixed character, that of today.

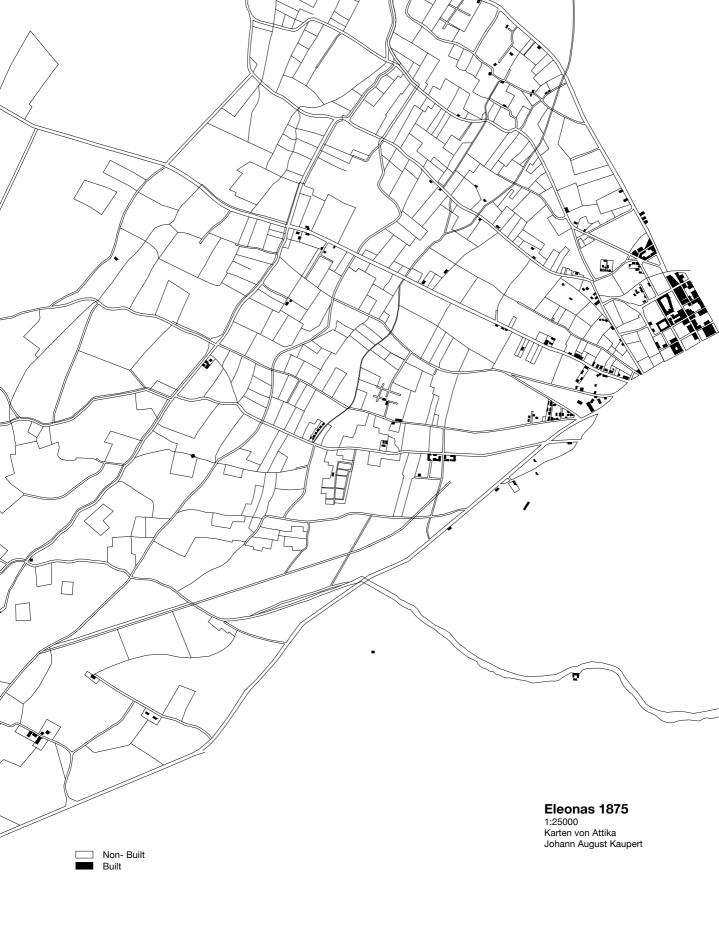
In order to do that, the general evolution of the area was studied. With the use of the first map we have of the area of J.A Kaupert of 1875 a first idea of the morphology of the agricultural land was given. Then with the use of aerial photography provided by the Hellenic Military Geographical service for 3 different moments the evolutionary history of the area was studied - for 1945 directly after the war, for 1969 during the peak point of industrial activity in the area and finally for 1987 when the industrial character of the area had already started This information provides declining. satisfactory picture how the primary transition from agricultural to industrial land happened, being the primary factor defining the current morphology of the area.

For these four selected instances of the Eleonas' evolution, the main information analysed were the gradual expansion of the "built areas" over the "empty spaces" representing the growth of industrial land over the agricultural, and secondly, how did this affected the expansion of the internal road network shaping it in the form we have now. Finally even though it is difficult to get clear information from aerial photography, it was intended as well to show the evolution of the area's limits in relation with the growing city, and how Eleonas was gradually encircled forming an enclave in the very heart of it.

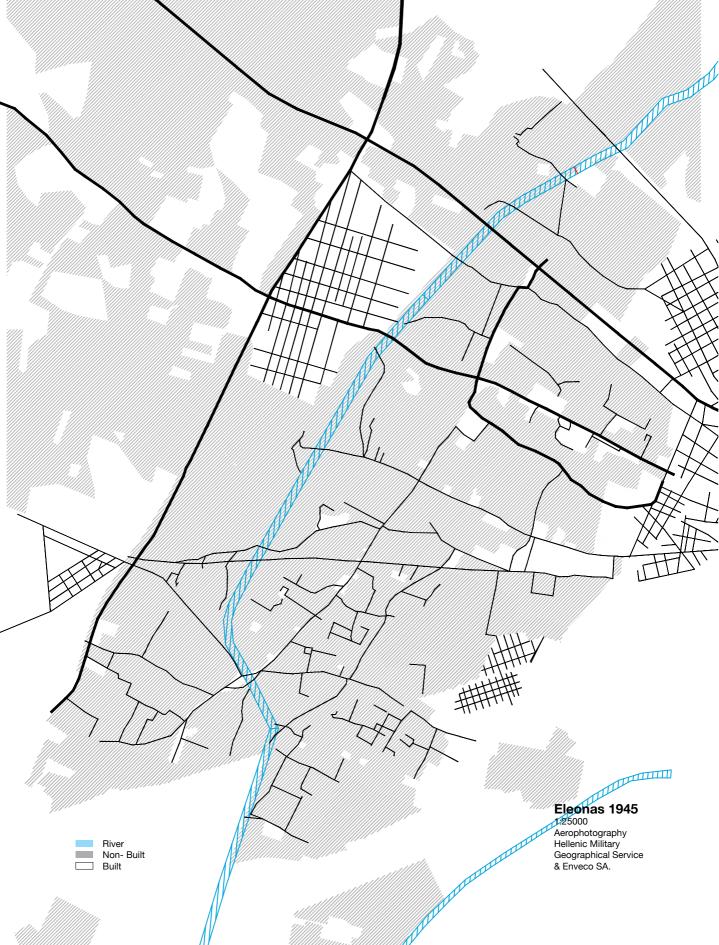
From this study it is obvious that this transformation, the expansion of the industrial activities over the agricultural land, didn't take place directly, and it happened in a disorderly manner, with industries occupying space, primarily on the main axes traversina Eleonas (1945). By 1969 with almost no intervention from the state, without any planning or any prevision of infrastructure, based on improvisation, this expansion has taken over the majority of the area's land, fragmenting severely the agricultural activity keeping some strong pockets, mostly towards Kifisos. The character of the area by then was predominantly industrial, creating a hosand incompatible environment for horticulture, Kifisos' waters were canalised and the unground water resources were heavily utilised by industries. Until 1987 these remaining pockets were converted, but this time taken mostly by activities of public utility, like the electricity company, or the bus provider of Athens.

The road network grew with the respective positioning of new activities in the area. No provision ever existed for the creation of new roads, except the central ones like, lera Odos, Petrou Ralli and Leoforos Athinon, serving the center of Athens and the main streets serving the central part of the area like Orfeos or Agias Annis. The rest has taken shape from the formation of small private paths that became public through the division of the bigger agricultural parcels in sub-parcels to host new activities. This shape-giving dynamic was based on the positioning of different activities depending on their individual needs, for space, location of raw materials, road access, visibility and proximity to other auxiliary activities serving them and the respective availability of space. The result as we have seen already was the creation of a labyrinth like area. Eleonas as we know it now.







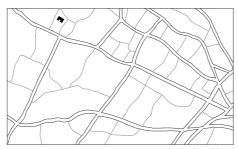


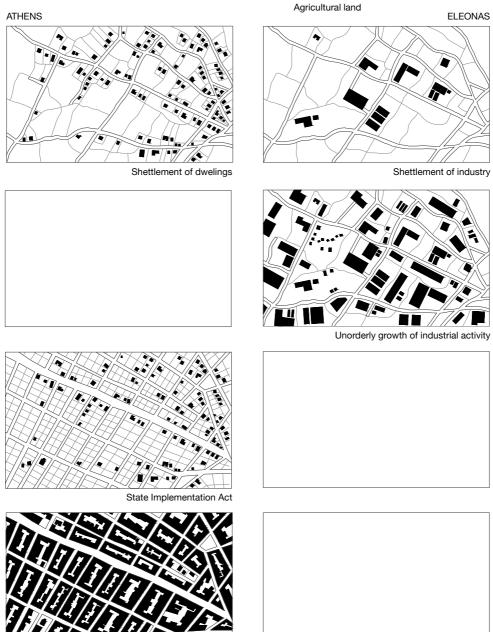












GENERIC PATTERN EVOLUTION

The observation of the urban formation of Eleonas in relation to the surrounding uniform grid of Athens shows a very strong contrast, two completely different types of configuration that refer in completely different mechanisms of evolution. This is not completely true though. These two patterns are outcomes of the same systematics; the absence of the incomplete implementation of regulatory planning and the tendency that exists until now of reactive urbanism, on the already squatted land for reasons that were explained in previous chapters.

The big difference in between the evolution of the grid of Athens and Eleonas beyond the fact that the latter was destined to accommodate mostly housing when the former became an industrial area, is the fact that still now, the state interference in its evolution has been the minimum focusing in singular issues without having a complete vision for the area, leaving it evolve almost by itself.

As it can be seen in the schematic representation of the evolution of the two grids, they have both started from the same agricultural land with a narrow road network following naturally the terrain and large parcels intended for agricultural production.

For the case of Athens during one of the great immigration waves (after 1922 or after the civil war), these very fields were parcelled and sold illegally to newcomers. The result was the formation of haphazard residential developments with no control from a struggling state, choosing to let such formations take place. After the expansion of such a development the state was forced to act and include it in the city plan, forming an implementation Act that would regulate the area, and with the money collected by the individuals "legalising" their properties, would construct the public infrastructure needed. Next step was the growth of the area with the system of "antiparochi" (see "History of Athens - Eleonas") resulting to high densities and lack of public areas.

For Eleonas, the early installation of industry in the area, has suspended the further parcelling of the land, preventing housing developments (except few) and as seen before, gradually it was transformed into a predominantly industrial area continuing to grow with no inference, planning or protection from the state, retaining the characteristics of its agricultural past, in an industrial and post-industrial future. (Enveco S.A)



Satelite image of the two sides of Leoforos Kifisou, both belonging to the municipality of Egaleo, 2012, 1:10000



Votanikos 1875, 1:10000



Votanikos 1994, 1:10000



88 Votanikos 2012, 1:10000

ELEONAS' PATTERN

Being more precise with the study of Eleonas' formation, and its direct connection of its current pattern with its original agricultural one, it was decided to look closer onto a specific area and compare the situation J.A Kaupert (p.80) found in Eleonas in 1875 and the current state of the area. A part of the area of Votanikos, also examined in last chapter was selected because of the fact that this area. has transformed from agricultural land in both types of pattern, so it is very intriguing to see how the two different phenomena have actuated on the same original tracings. The area of Votanikos was also chosen because of the fact that the drawings of J.A Kauper had a considerable error measuring the distance the furthest he was moving from the centre of Athens, and Votanikos seemed ideal, having only a minimum error, easily correctable.

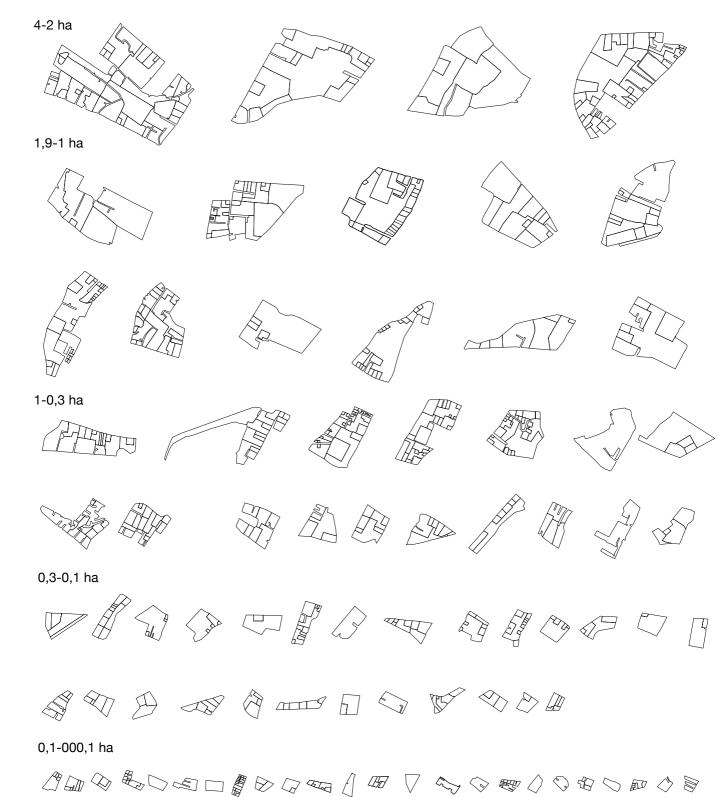
The precision of the findings was striking. Comparing the these two maps, the current pattern from both sides of the city seem to fit exactly into the original tracings of the agricultural land of 1875 explaining why they have that specific shape, especially from the side of the site of the city where the area is dominated by a non isotropic grid. Here the interesting part is that even the arrival of the railway line hasn't rearranged radically the original shape of the pattern.

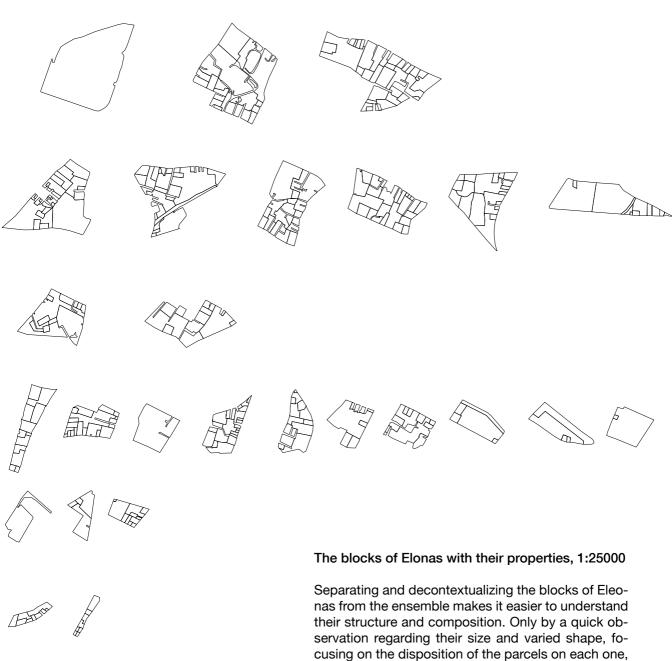
In the area of Votanikos it is also obvious that the original tracing was kept and as the original land was cut in smaller parcels to accommodate new activities new small roads were created mostly to give access to the parcels being left in the inner areas of each urban block. Here in this scale it becomes more clear the fragmentary nature of the area owes its existence to the ownership status heritage of that agricultural past. It becomes obvious the existence of a lot of properties of very

large size and very strange shape. Property sizes that correspond to agricultural and industrial uses; in the current state though of the area, where there is neither agriculture, nor that much industry to coincide with it, it results in the creation of large inert zones, or enclaved parcels that are reutilised for horticulture, some of them visible in the satellite image. Empty parcels, hidden, well protected; abandoned enclaves that remain in obscurity aggravating the discontinuities, both spatial and perceptive of the area.

The nature of the area's introvert activities that were installed was such that imposed such an evolution, giving shape to the area's pattern. Activities that retain their loose relationship with the urban environment that surrounds them, unable to contribute in its self-reorganisation. Factories, and a great number of activities of public utility, such as the numerous bus depots like the one in Agiou Polycarpou st. (clearly seen in the centre of the satellite picture), the naval base at Markoni and the high voltage central of the electrical company and the army's ex camps of Rouf needed large spaces with an unconstrained relationship with the urban tissue, and Eleonas had the space.

This relationship of the area's pattern with its activities causes that in many parts of Votanikos the general feeling is that it is a purely private area, with its narrow roads, the non-existing sidewalks and private parking areas. But moving towards areas with smaller properties like in Dimaraki st., the scale changes. The residential pockets and the small manufacturing units redefine the general connection of the built environment with the street level leading to the reappearance of the neighbourhood.





separating and decontextualizing the blocks of Eleonas from the ensemble makes it easier to understand their structure and composition. Only by a quick observation regarding their size and varied shape, focusing on the disposition of the parcels on each one, we can start categorising them in different families, but that belongs to a different type of analysis it is not of interest at this point. As a general remark it can be said that in the vast majority on the edges of the blocks are found mostly smaller properties that belong often to smaller industrial and commercial activities being dependent to their visibility of street, when in the inner parts sometimes with no connection with the street are found bigger parcels that fill the gap left. These enclaved areas are the most difficult spaces not only to access but simply perceive their existence in Eleonas.

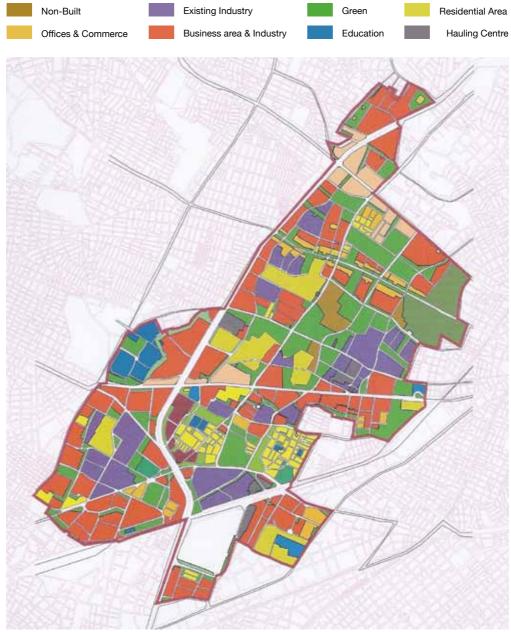


STRUCTURF

We perceive Eleonas, as a non-structured ensemble of heterogeneous elements. A mosaic where everything is obeying the rules of disorder. This image is not far away from reality. Things do not look as we expect them to be in the centre of a city, and certainly they are not. Eleonas is deprived of basic amenities that for any other place in Athens are more than natural.

But even though, it is a whole that works, with its own rules and balances, its own systems and limits, its own structures and pathogeneses that allow him to go on and continue to evolve through time. One of these is the sewerage network supporting inadequately the area. It barely exists33, supporting the main axes, where the area's main structures are positioned, but it is there. An invisible structure that connects with the river of Kifisos where the main pipeline of Attica passes and the stream of Profitis Daniil that lifts a weight more than it should take, being the main axe for draining rainwater and sewage through the central part of the area. A structure that brings together this seemingly ataxic pattern of Eleonas enabling him to be.

^{33. (}Central areas using cesspit pools polluting soil and groundwater with domestic and industrial wastewaters)



Plan 1995, 1:30000, source (Enveco S.A)

PI AN 1995

Eleonas until 1990 it was still an area outside the plan of the city, and it wasn't until 1995 after several previous unproductive attempts (due to disagreement between the 5 municipalities) that with a presidential decree (Official Government Issue No 1049D/30.11.2995) was issued in order to set some basic planning regulations.

According to this plan, a first effort was done to organise the area in general use level, formulate specific operational zones, and enhance the expansion of green areas. In addition, the removal of all polluting industries from the area is promoted, limiting hauling operations, supporting the remaining small-scale manufacturing and industry. In addition some new roads are predicted to ameliorate the current state, the construction of basic infrastructures that sill lack from the area, towards a general improvement of its environmental status.

The general direction is right, but the implementation, proved to be infernal, and the plan unable to control the appearance of "exceptions". The plan predicts that when a user of the land wants to built, or do any construction work in a parcel he owns, has to get an approval by the municipality where it belongs. This happens giving in return (if he has to), the part of his property to be transformed into a green area or a new road, receiving an expropriation fee from the municipality, that were not able to tackle such an intense bureaucratic issue, and pay large expropriation fees.

So the major problem arises from the fact that each municipality is responsible for the application of the new plan depending on their availability, politics etc. Hence, from all five, it is just the municipality of Agios Ioannis Rentis-Nikaia that has finished the 30% of its area and the municipality of Athens that has put through the 15% of its total area, with the other three municipalities having blocked the process of reacquisition of land from private owners.

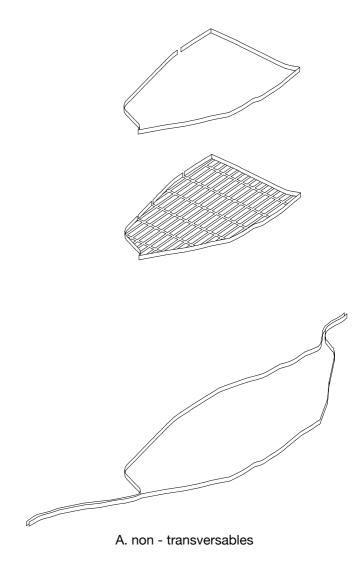
In parallel the ambiguity of the regulations³⁴ and the flexibility of each municipality to investors, for different reason every time, result to phenomena, of bending the plan with unexpected results every time, promoting only big scale initiatives, pushing small users out, by the pressure of rising land value. For example, an important issue that has arisen was with the new stadium of Panathinaikos that is planned in the area of the old factory of ETMA. were the municipality of Athens has tried to pass together a new mall of considerate size, against the regulations, bending the law, creating a new amendment in order to approve it, finding fierce reaction from citizen groups, that actually halted the malls construction with legal action. Also another good example is the "Allou Fun Park" (see image p.55) in the junction of Petrou Ralli and Kifisou that was a parcel allocated as well as a "green area" in the plan, only, to be transformed into a "green" amusement park.

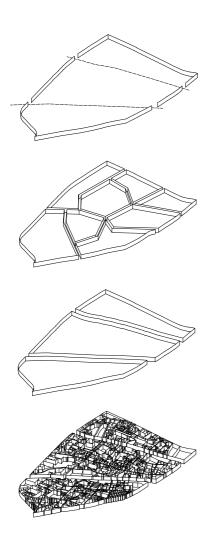
^{34. &}quot;to reach the 30% coverage as predicted by the presidential decree, in the green coverage are also calculated the Agricultural University, the Technical Institution of Piraeus, the stadium of Panathinakos, the training grounds of Olympiakos, altogether counting for the largest percentage of that green area"





Urban Enclaves



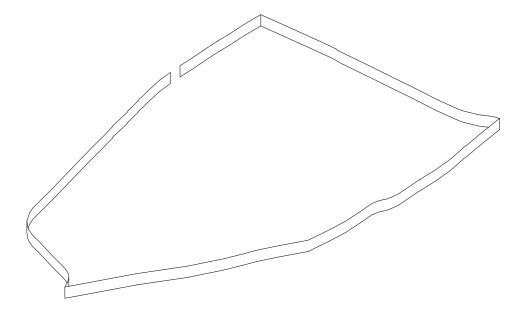


B. transversables

In order to understand better the character of Eleonas as a body of consistent fabric situated internally the homogenous structure of a city with clear limits, an enclave of great size, it is helpful to compare it with other similar structures, trying to apprehend its affinities and dissimilarities. Distinguish the main categories of such a phenomenon and analyse them.

It is absolutely normal to find in the inner core of cities systems which are of different nature, differentiate morphologically from the main mass of the city, have definite limits and are more or less connected with their urban environment. The role of such systems in the city varies, from parks and airports to industrial sites and ethnical or economical ghettos - various structures for different functions in different environments. Areas well identified, known, easy to locate due to their clear limits, with a very special function serving in a more or less direct way the city.

In this effort to try and characterise these places they were divided in two main categories, to these who are not traversable or accessible due to their nature and to these that can be traversed in various ways. Then by further categorisation the character of these places will be investigated always in direct comparison with Eleonas. In that way the main character Eleonas will be better defined and understood before making a step further trying to understand more explicitly the site-specific characteristics of the area.

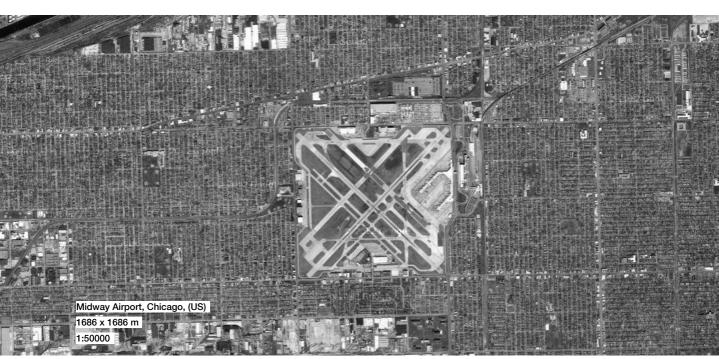


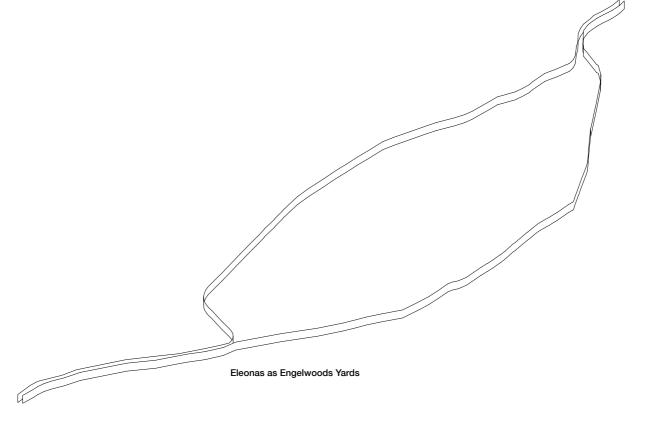
Eleonas as Midway Airport

A1. CLOSED SYSTEM

The first category is that of enclaves that operate as completely closed systems that beyond the fact of their size, they have a minimum need of internal spatial complexity due to the way they operate. Such systems are airports, training grounds of the army, parking lots and storage yards. In general this kind of enclaves are of a sole function and their limits are clearly defined and most often materialised in order to protect their function.

A clear example is the airport of Midway in Chicago that appears as great missing part inside the isotropic system of the rigorous American grid. Its rigid form, the square, in conjunction with its not very fitted hosted program (for such a shape) that of the airport, create reasonable areas that cannot be used by anything else, a true material interruption inside the grid. In this way the grid continues almost unaffected being developed around the absent part. The limits formed for example in two opposite sides of the square with the surrounding grid are of an astoundingly resemblance, of pattern and use. A striking attestation of the grid's continuity only to be interrupted by a brief event, a pause from which afterwards it can carry on its spatial expansion.





A2. CLOSED SYSTEM MONODIRECTIONAL FLOW

This kind of enclaves are of a very close nature to the ones of the latter category with the critical difference that due to their function, the allowance of an unidirectional flow to take place in them, their form is in most cases elongated, continuous, of great dimensions. Most enclaves of this category are rail yards, one of the most typical dividing elements that can be found in the city. Their size, direction and form is usually unaffected by the form of the city being completely functional elements, obeying in an other set of operational rules, and in most cases it is them that act as defining factors in the development of the city's form.

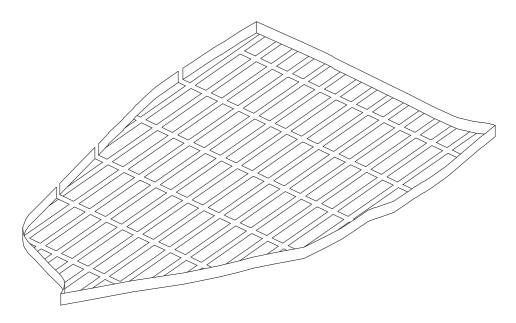
Engelwood yards in Houston is exactly that, a large size enclave that comes in collision with two different types of grid (residential and industrial) defining them both. The limits of the enclave act as a rigid boundary, disconnecting its two sides letting realities of different nature, different programs, and different pattern to develop. The enclave becomes a defining toponym, North of Engelwood yards is different from South of Engelwood yards, structuring the asymmetries of the city, segregating classes, cutting off what perceived by the society as redundant.



A3. CLOSED SYSTEM, INNER GRID

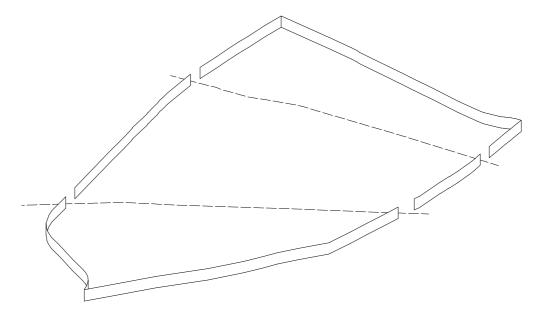
Enclaves of this category tend to accommodate one single activity that at the same time needs inner spatial fragmentation, organised depending to function and minimum interaction with the exterior environment. Nowadays these are mostly big industrial complexes that accommodate very complicated processes like chemical refineries needing great amounts of space and a clear internal organisation, when for reasons of security they have to be completely protected from intrusion. Also several army camps, or types of prisons can be included in this category or even ghettos. An example could be the ghetto of Warsaw, a part of the city, retaining its original structure but being completely disconnected from the rest, forming an enclave.

Here in the BASF Chemical Refinery in Ludwigshafen, we have an extreme expression of this category, where the enclave have grown in such a manner during its lifetime that it came to be bigger than the city, dominating completely the riverfront. In the same time, the inner grid, has changed several times, size and direction, adjusting to the requirements of newer production methods.



Eleonas as a BASF Chemical Refinery



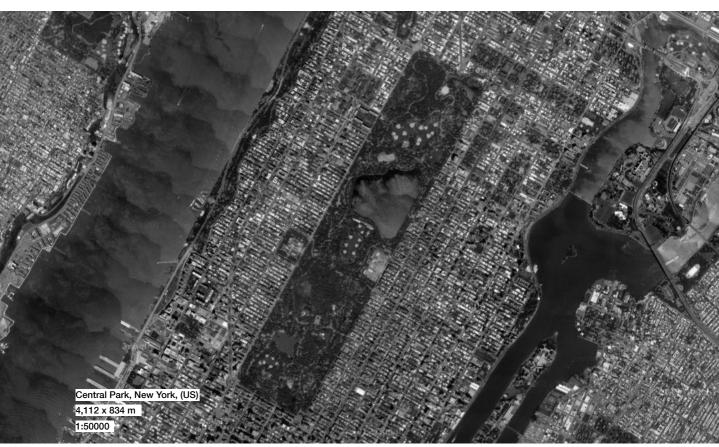


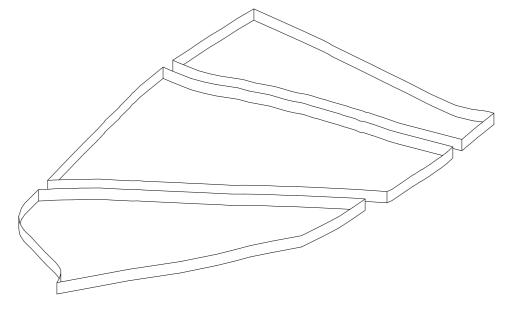
Eleonas as Central Park

B1. CONSISTENT CONTENT NON DIVIDING TRAVERSING

Homogeneity in the consistence of an enclave's contents is a recurrent theme. It could be almost stated that is that need of having grouped together much of the same nature that is actual one of the principal generators of enclaves in our urban environments. In this category though, this utterly homogenous context is traversed by a foreign system leaving intact its cohesion and the way it is perceived as a whole that makes it special. An excellent example of that is the Central park of New York. As previously seen in the case of Midway airport of Chicago, Central Park is also a perfectly arranged pause in the grid of

New York, here following the general shape of Manhattan separating with its mass the island in two. But due to its position, program and accessibility it becomes the city's dominant public centrality and at the same time being traversable in various points of its body, it makes it more of a connector than a dividing element of the city's structure. But one of its most astounding characteristics is the fact that even though the fact that it is traversed in various points by road traffic, the way these connections are conceived and incorporated in the park's body, permit it to retain its fierce perceptual continuity as a whole.





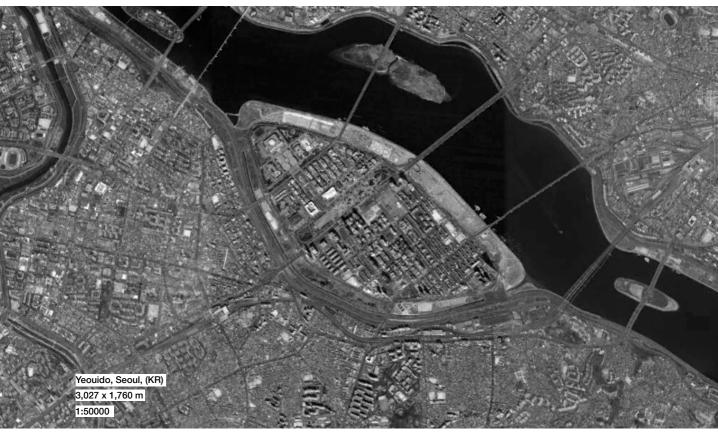
Eleonas as Yeouido

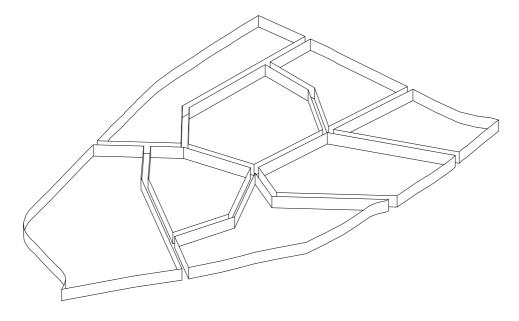
B2. ZONED ENCLAVE DIVIDING TRAVERSING

Here, traversable urban enclaves, beyond the fact that are completely different structures from the rest of the city, being developed in their own particular manner, or just in different time than its surroundings, they still retain in their proper body an inner complexity of sub grouped entities of different functions being spatially determined by the structures traversing the enclave.

Yeouido in Seoul, is exactly that. Being an island it already gives it a spatial particularity in relationship to the rest of the city. Then the fact that it used to be an airport in the

past, being afterwards developed to something different, housing new needs of an already dense city, made it having a very regular structure determined by the conjunction of two geometries. That of the island and that of the highways traversing it. Notably the fact that each pocket was inserted with a different function (national parliament, financial quarter, housing quarter) making the most of the new space created, makes it even more identifiable, being in the rare situation where each part of it is a completely autonomous structure that could survive and continue unharmed if any of the other parts were to be subtracted.



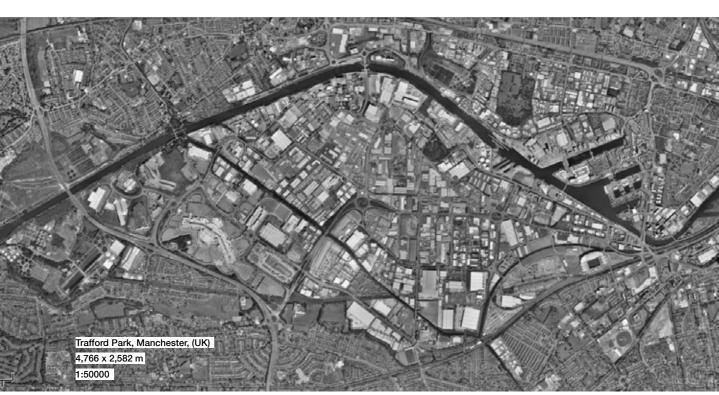


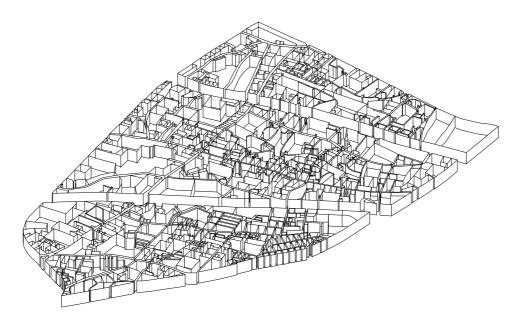
Eleonas as Trafford Park

B1. FRAGMENTATION NON LINEAR TRAVERSING

This category resembles a lot to the latter, where the enclave apart from its particularity relative to its surrounding environment, has an internal structure that organises its functions. The difference is that here this inner structure is not organised in a rational way, it is not the result of a planned action, but the outcome of the progressive appropriation of a previously unplanned territory like that of agricultural land, or large estates for a different function. In this manner, new connections and new entities are formed gradually completing slowly the puzzle, shaping a new whole.

Trafford Park in Manchester was shaped in that manner. Being previously a large estate, during the industrial revolution was rapidly sold in pieces depending to the needs of each one of the new industries that have settled in the area. This action resulted in the development of the fragmented nature of the area, being cut out gradually in very big parcels, and being served by a road network that was also developed to serve the needs of the industrial production of that time.



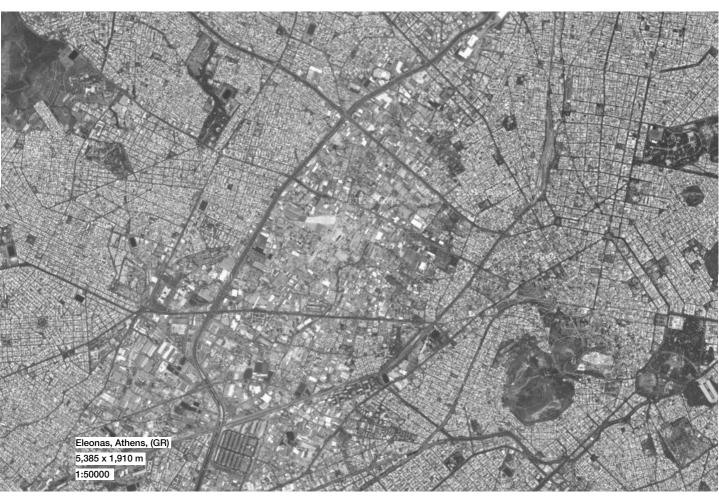


Eleonas as Eleonas

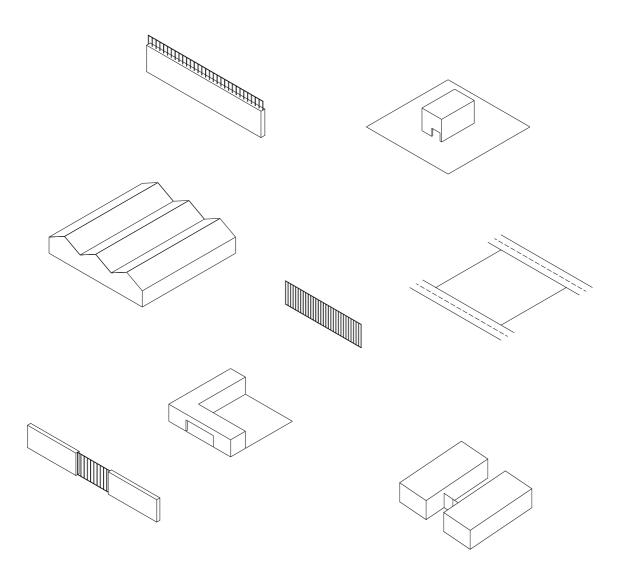
B4. FRAGMENTATION MULTIPLE ENCLAVES

Eleonas belongs to that final category that could be seen as a different evolution of the previous one. Here the fragmentation of the whole, as seen in previous chapters, happened slower and their gradual cut-out was a result of a quite unplanned process based completely on small to medium scale initiatives that took place in an area that has changed character many times in its history, reinforcing its character of a heterogeneous patchwork.

Finally the thing that mostly characterises the area is that of being a large enclave of homogenous texture, an entity traversed by several main roads of the city without disturbing its continuity. But then, seeing it from a closer distance the existence of a well bounded system of smaller enclaves appears, which is what shapes it in reality - this repetition of the phenomena of the enclave in two different scales.



Elements



In the very beginning of this research over Eleonas an extensive field trip took place in the area spanning over several days. During this survey the whole area was walked around gathering information of various natures, trying to figure out what Eleonas was really made off, creating a valuable personal relationship with the area trying to read the different elements that constitute that whole, before building an impression made of analytical and bibliographical information over what is Eleonas.

During that extended survey apart from the basic information related on the activities of the area, the change of character in between the day and the night activities, the change in character of the area during the weekend, who lives and works where; it was tried in a systematically manner to be gathered mostly with the use of photography and notes, the physical dimension of what the area is built of.

All different elements were photographed in an equivalent manner in order to build up a library of all these fragments that compose Eleonas, in order to be studied in a later time adding a closer dimension to the subject under research. It was during this field trip that the first fascination was developed over the "invisibility" of parts of Eleonas, that appears in all different scales, and especially in the street level where this characteristic becomes more obvious, almost dominant over the general perception we have for the area. First step trying to understand this phenomenon, was the built up of a language of these basic elements, that when combined form situations of invisible enclaves. These basic structural elements identified are: the wall, the entry, the building and the type of parcel in relationship with the street.

Primarily a first impression of each element is given presenting some of the most characteristic specimens found and identified during the survey in a form of a catalogue. presenting their position in the area trying to demonstrate their generic nature, common for the whole of Eleonas. Furthermore, each element is classified, mostly depending on their opacity, basic form and finally their relation with other elements. This is done in order to understand which types of them affect the most and in what way the formation of enclaves. Hence a strong consciousness over them is to be constituted, building a language of base, permitting to continue further after with the more systematic research towards a typomorphological study.



THF WALL

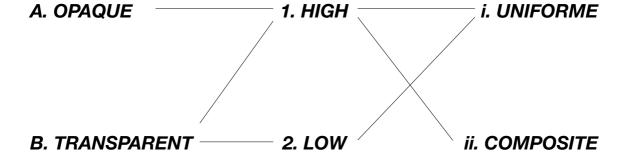


Walls are undoubtedly one of the main compositional elements of Eleonas. High and mostly opaque, long continuous walls dominate the linear public space of the area, creating a strong sense of enclosure that combined with the narrowness of the streets their visual effect becomes evermore accentuated. Their basic function beyond defining the limits of the property and trespassing is the impediment of visual connection in-between the inner part of the parcel and the road.

With Eleonas always being in a state of semi illegal existence the evolution of the high opaque wall became inevitable and it remains one of it's most recognisable characteristics. All activities, legal, but mostly illegal were encircled from any side possible by these imposing elements. Narrow roads were transformed more in something like canyons and the vast areas of Eleonas stay hidden behind their opacity having a great effect to the way we visually perceive the area. The other predominant type of wall found in is the transparent wall / limit. They serve a different cause. Mostly found bounding voids, stocking grounds, where no activity is taking place, no activity to hide away. Their role is largely to avoid trespassing, unauthorised use of the space and squatting.



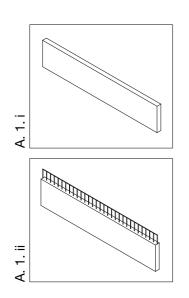




In order to study the types of walls in Eleonas, the main analysis was done upon their capacity to impede the view and how that is affected by three factors: the opacity of their materiality, their height and finally the wall as result of uniform or composite combination of opaque and transparent materials.

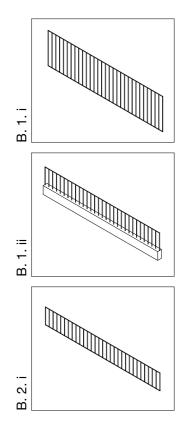
For opaque walls the materiality varies, all possible materials are used, from concrete and concrete bricks, which are the most typical, to just precarious constructions based on previous walling systems, mostly transparent metallic grids being afterwards cladded with whatever fits the main purpose, block the view.

Transparent walls, a lot less in number than the opaque ones are mostly metallic, constructed in a simple, faster and cheaper manner than an opaque walls would be, providing an easy solution for enclosure for sites where visual restrictions are not needed. But still regardless their transparency when seen in perspective depending their materiality they still appear more or less as opaque elements adding up to the general effect of enclosure of public space in the streets of the area.

















THE ENTRY

In a universe of walls like Eleonas, with impermeable boundaries in-between the various natures. different activities. different systems and fluxes that take place, entries become the sole pores wherefrom any type of interaction can be materialised. With the term entry, it is intended to include all openings on the walling system that characterises the built structure of this part of the city. These entries in their vast majority are of a controlled nature; gates of considerable size that permit access or not to inner part of each cell structure.

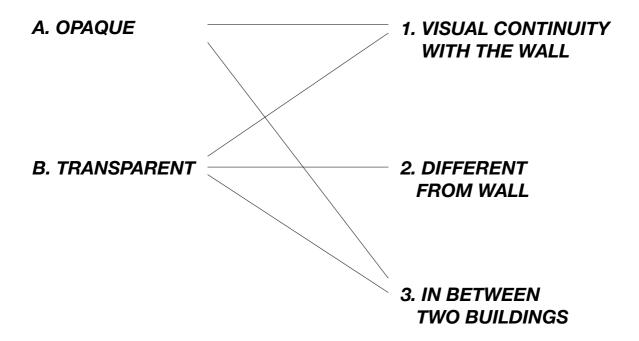
Their nature though varies. Most of them are of a continuous nature with the walls they serve. Hence an opaque wall most probably will be served by an opaque entry, respecting the main function of the enclosing system, the restriction of view towards the inner part of the parcel and avoiding trespassing. On the other hand these gates taking in consideration their size, when open during times of activity, they dematerialise becoming just a gap in the walling system, an active connection of the inner part of the cell with the outer world, allowing unrestricted view in the inside of the parcels, interrupting the visual continuity of the walls, giving the impression of the existence of a more dense street structure than the existing one when seen in perspective from street level.

In times of inactivity though, during the night or the weekends the image of the area changes drastically, from a more porous system to a completely inaccessible physically but also visually environment, where the sight can't escape nowhere else than the perspective of the road.



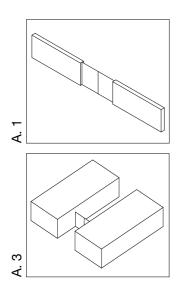






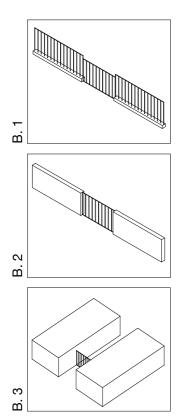
The study and classification of entries was impossible to done only on element level and they have to be seen in direct conjunction with the enclosing system they serve, being that the wall or the adjacent buildings that act as boundaries to the cell. Then the main characteristic remains here as well the capacity to impede or not the view towards the inner part of the parcel. So the main declinations of the entry as an element come from the combinations of these characteristics, opacity and the type of enclosing system they serve.

The great majority of the gates found in Eleonas are opaque and of great dimensions, designed based on the scale of the continuous flux of trucks that serve the different activities of the area. Transparent gates exist as well but are less common and mostly come serving transparent walls being their natural continuation with no need of view impediment.









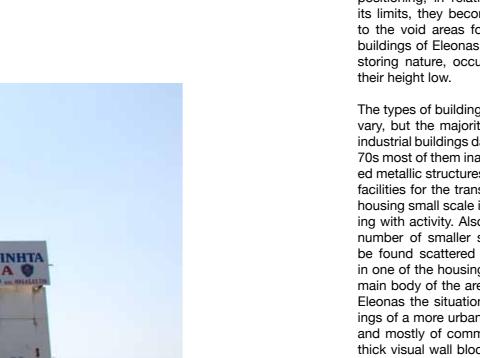








THE BUILDING



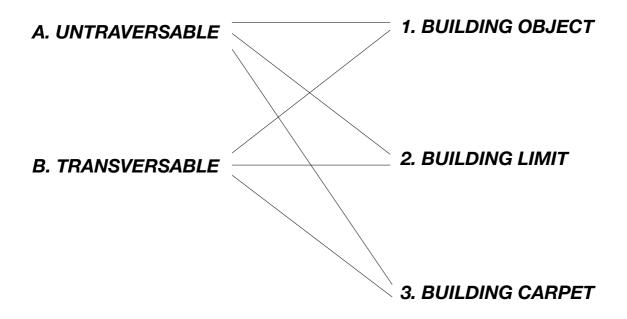
Buildings in Eleonas together with the system of walls play a determining role to the formation of the urban landscape. Depending their positioning, in relation with the parcel and its limits, they become structuring elements to the void areas formed in-between. Most buildings of Eleonas being of a producing or storing nature, occupy great areas keeping their height low.

The types of buildings to be found in the area vary, but the majority of them are either big industrial buildings dating back to the 60s and 70s most of them inactive, or low rise extended metallic structures used mostly as storage facilities for the transportation businesses or housing small scale industrial activities, busting with activity. Also there is a considerable number of smaller scale buildings that can be found scattered around Eleonas, mostly in one of the housing pockets situated in the main body of the area. Finally in the limits of Eleonas the situation changes. There, buildings of a more urban character can be found and mostly of commercial activity forming a thick visual wall blocking the view to what is the situation in the core of the area.

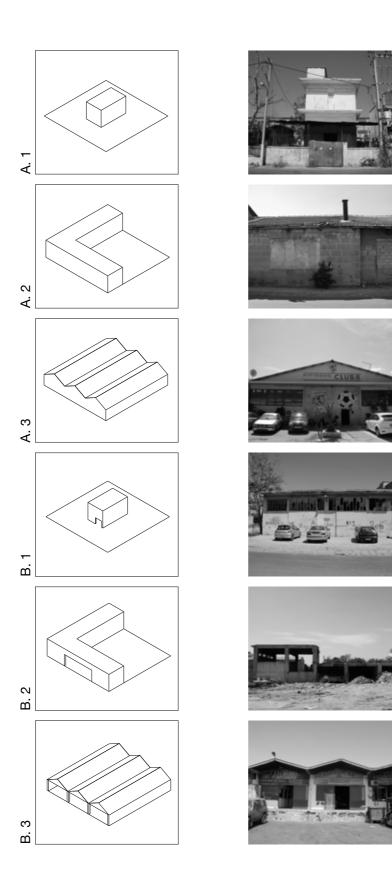
Focusing in the materiality and the construction technics of the existing buildings, except the buildings of factories built during the years of the industrial boom of Eleonas that are mostly based on the dom-ino system, the rest are of a composite nature. Buildings built to be cheap to construct, simple in conception, providing extended covered areas, finally being versatile and capable to house various types of activities. These buildings were extended, repaired and extended again various times with simple building techniques and absolutely no control from the state's building authorities resulting to the current building stock of Eleonas.







Studying the building as element acting in the formation of void the main interest was based on two factors, the relationship of the building with the parcel and its transversability, both physical and visual, giving access in the inner parts of the parcel. In relation to the position of the building in the parcel three categories were identified: the building object, freestanding in the parcel dividing the open space in various subspaces, the building limit, where the building acting a functional wall acts as a boundary directly forming the inner void in the parcel and finally the building carpet, expanded all-over the given space not leaving and void space but many cases recreating it inside its very own body.





THE PARCEL (the void)



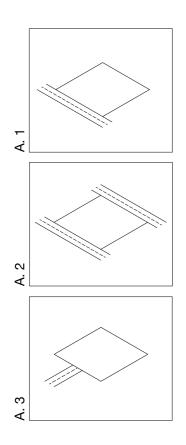
Beyond the constructed reality of Eleonas voids are the ones that consume the majority of its space. Voids wanted, utilised by different activities and voids that have resulted by the slicing of the large blocks in smaller parcels, areas not wanted, not used by anyone. These open spaces, used or residual, construct the current image of Eleonas. Most of the times they remain invisible behind the high walls or blocked in-between different parcels, giving to the area a character of emptiness, decay, disuse, a land that have fallen in disfavour and is left out from its common future with the city that belongs to, a parallel universe. This image of decay is accentuated by the elements that are found in these voids, abandoned buildings, destroyed structures, old cars left behind. Even the businesses that still use these voids treat their premises in an ephemeral way, showing no care, projecting a recklessness towards the future of what is theirs; no sign of ownership of any kind, just utilising what is needed, leaving behind the residuum of their activities, both material and spatial.





A. ACCESSIBLE 1. ONE ROAD ON THE SIDE 2. TWO ROADS IN OPPOSITE SIDES 3. FRONTAL ACCESS

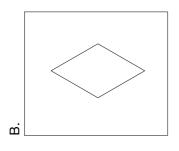
Understanding the parcels in conjunction to the formation of enclaves, the importance of the relationship of the void with the public road was identified. So the parcel as a structural element of an enclave can be divided in two general categories, to the ones that are accessible and the ones that are not. To the ones that are accessible, great importance plays the actual positioning of the road in relation to the void. The visibility, or just the possibility that an enclave becomes visible changes whether the void is has a one size against the road, if it's situated in between two roads or if it is just served by a road concluding perpendicularly against one of its sides. These situations are that give us the declinations of the accessible parcels.













Eleonas' Enclave Typomorphological Study

In order to achieve such a complete image of the population of enclaves that exist in Eleonas it was decided to be conducted a typomorphological study of them organising them by types based on their morphological characteristics.

To start with, "type" can be defined as a "set of distinctive characteristics of certain groups of objects" of one precisely for this study "Ideal model conceptually defined by a series of essential character" Based on that, from the structural elements described previously after being examined, those who play an active role in the formation of enclaves were identified and utilised as the main pieces to compose the types that would be the structure on which the typological study would take place.

Typology is the study of these types created, referring to a plurality of objects seeking for the character and/or the common elements, in contrary to a simple classification which is organised upon the differences of the objects in study. These types developed were always corresponding directly to the situations of enclaves to be found in Eleonas with a high level of abstraction, being organised upon the basic elements forming them and not directly the precise form of them.

After all, Merleau-Ponty in the indentification of the "shape" states with accuracy that:

"La forme des objets n'en est pas le contour géométrique : elle a un certain rapport avec leur nature propre et parle à tous nos sens en même temps qu'à la vue. La forme d'un pli dans un tissu de lin ou de coton nous fait voir la souplesse ou la sécheresse de la fibre, la froideur ou la tiédeur du tissu."³⁷

Hence in order to conduct a morphological study what has to be composed and studied is the "Set of features that allow a concrete or abstract reality to be recognized.", since the "Quality of an object resulting from its internal organization, its structure, embodied by lines and surfaces that delimit, likely to be perceived by sight and touch, and to distinguish it from other objects regardless its nature and colour. "

Concluding "Typomorphology" is:
"The science analysing typical forms of a complex reality permitting their classification."38

To achieve that, as a first step, after collecting a vast number of enclaves, their common features were identified. This first action established a set of groups on which, in a latter time their differences were determined. This process in conjunction to the good understanding of the basic elements composing them made possible to establish the different sets of declinations used to break down and tabulate properly the enclaves.

In that way, a first set of declination of the theme of the enclave was created based on two things, the nature of the enclosure and the existence or not of a building or buildings that would potentially fragment the open space created by the walling system. This first declination produced three categories (A, B, C), based on the nature of the enclosure and each one was respectively declined in five types according to the type of building housing in it.

Then a second declination based on the three different relationships identified of the parcel with the street was created, to complete the picture and describe in a more precise manner the correct nature of each enclave. In this manner the final typomorphological study of the enclaves of Eleonas was produced taking into consideration all the enclaves that were identified using aerial photography taken in an angle of 45° permitting good understanding of their structure. This study gave the opportunity to have a clear idea of the current situation in the area, understand its nature better and us bring closer to better comprehension of each enclave bringing out the main stakes that characterise them as a whole, but also in particular for each one of them.

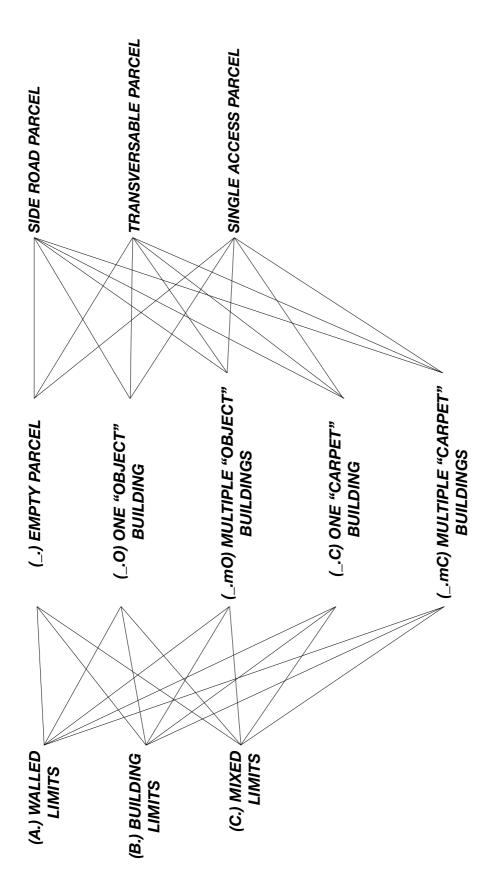
^{35.} Leclerc de Buffon, Histoire Naturelle générale et particulière (1749-1804)

^{36.} Carl von Linné, Species Plantarum (1753) et Systema Naturae (1756)

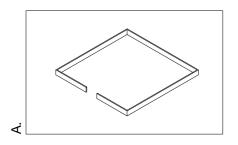
Merleau-Ponty, Phénoménol. perception, (1945), p. 265
 Centre National de Ressources Textuelles et Lexicales, (cntrl.fr)

Second Declination

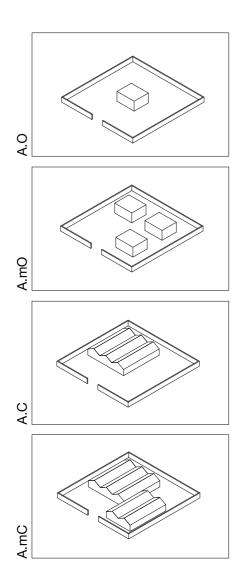
First Declination



First Declination







A: Walled limits

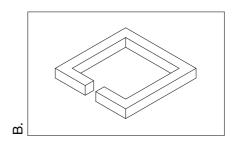
B: Building limits

C: Mixed limits (walls & Buildings)

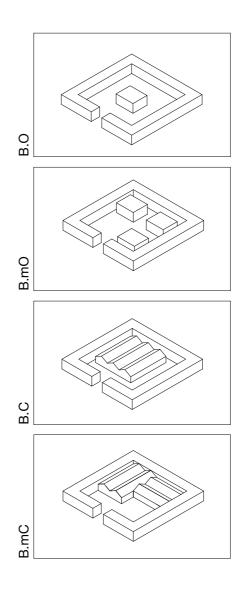
O: one "object" building

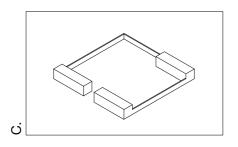
C: one "carpet" building

mO: multiple "object" buildings mC: multiple "carpet" buildings

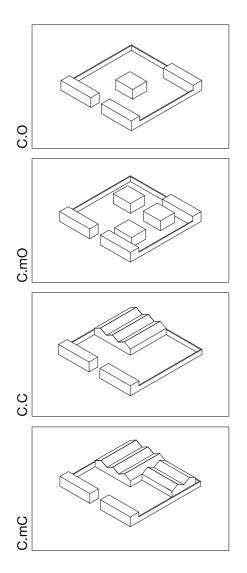


BUILDING LIMITS









A: Walled limits

B: Building limits

C: Mixed limits (walls & Buildings)

O: one "object" building

C: one "carpet" building

mO: multiple "object" buildings mC: multiple "carpet" buildings

Second Declination

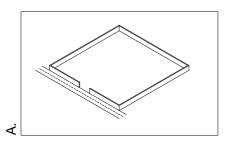
SIDE ROAD PARCEL

Parcels that at least an adjacent road defines one of their sides are the predominant type of parcel to be found in Eleonas. These parcels can allow commercial activities to take place in them, as they can be visible towards the street but at the same time due to the same reason the majority of them have built great walls controlling this visibility always depending the activity that takes place in their inner core.

After analysing all the parcels of this type that appeared to be enclosed by opaque systems impeding the view, and categorising them in the three basic declinations identified in the previous step it was found out, that the majority of them belonged in the first declination (with only walled limits "A") with second more populous being the third (with mixed limits "C").

This fact can be explained due to the fact that being parcels that have a direct access to the street are currently mostly used by uses related to road transportation and derivative activities related to that. Meaning that the majority of their inner spatiality is in many cases dedicated to the storage of vehicles of large dimensions, hence their inner volume is kept open and the least fragmented possible. This including the limits of the parcels, having no building, or the least possible, resulting in simple walled limits or mixed ones.

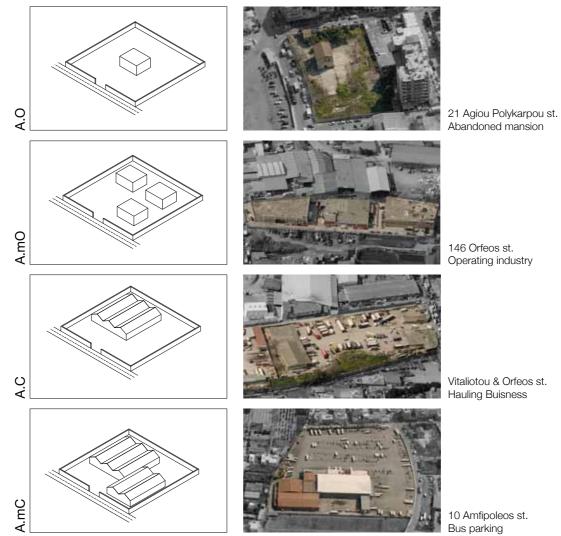
This doesn't mean that other types are not to be found, like abandoned mansions ("A.O", 21 Agiou Polykarpou st.) that are still heavily walled, or small industries ("C.C", 182 Leoforos Eirinis Av.) that with the time have utilised with subsequent additions all their space given by the parcel leaving just the minimum space possible (ex. Type "B.mC").



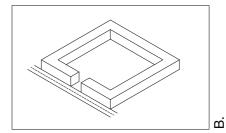


59 Agiou Polykarpou st. Parking

A

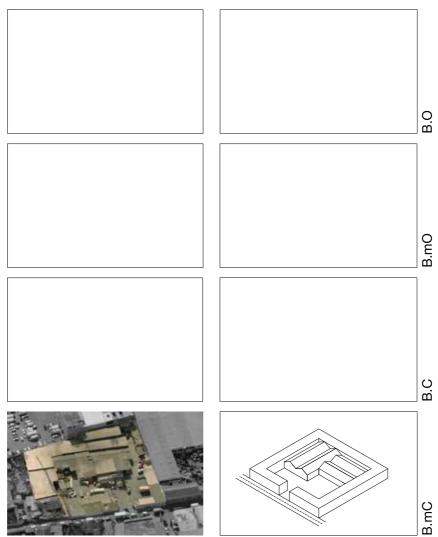




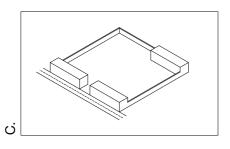


77 Agiou Polykarpou inactive industry





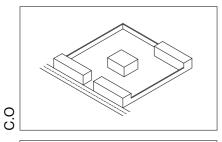
111 Orfeos st Active idustry





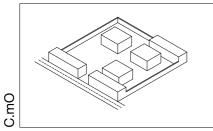
160 Orfeos st. Hauling





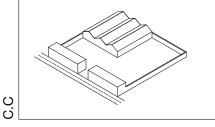


65 Petrou Ralli st. Vehicle repair station



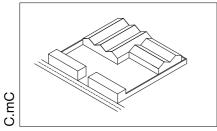


37 Ag. Annis st. Hauling buisness





182 Leoforos Eirinis Av. Construction material storing



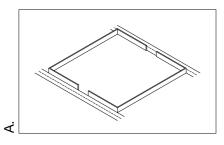


15 28is Oktomvriou st. Bus parking

TRANSVERSABI E PARCEI

Transversable parcels are the least found in Eleonas mostly because of the great dimensions of the blocks that dominate and form the pattern of the area. Still a considerable number of them still exist again mostly belonging in active hauling businesses that take advantage their strategic positioning allowing easy entry and exit of the greater fluxes of vehicles and a more diverse access in the already oversaturated road system of Eleonas. In these types it can be seen that in some cases the walls are lower. or of a mixed nature providing a lower level of opacity, including the fact that because of the nature of their activity, entries are of greater size, so these parcels become more visible from street level. Even though this fact is compensated by two facts: firstly by the proper body of trucks parked in the premises. forming a second opaque walling system (phot. 4, p.81) and secondly the positioning of various buildings in the open entries of the parcels being both functional controlling the flux of vehicles but also controlling the view towards the inner part of the parcel ("A.mO", 20 Salaminas st.)

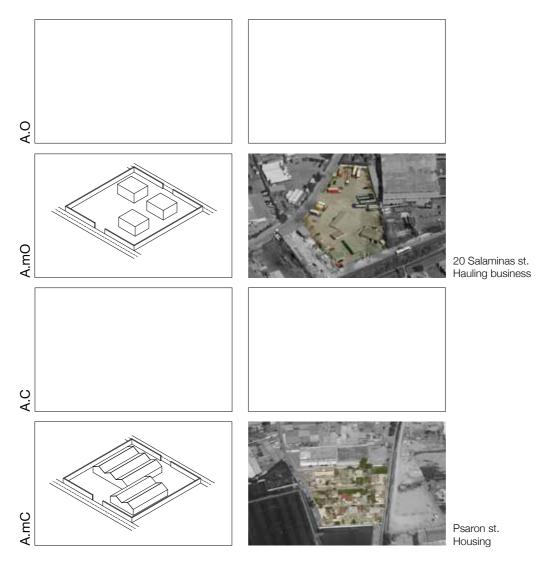
Exceptions do exist, sometimes being hard to recognise them and position them in this category and not the one following, due to the fact that even though they are in between two streets at the same time they do not really demonstrate their transversability through their activity. This it can be seen in one of the remaining horticulture plots in between Lenorman and Zinodorou streets ("C") or the small industry in Voutsara street ("C.O") where the two sides of the parcel are not of equal value, having a principal entry and a secondary one scarcely used.



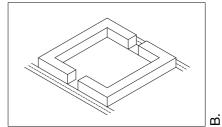


Pappou & Drakontos st. Bus parking



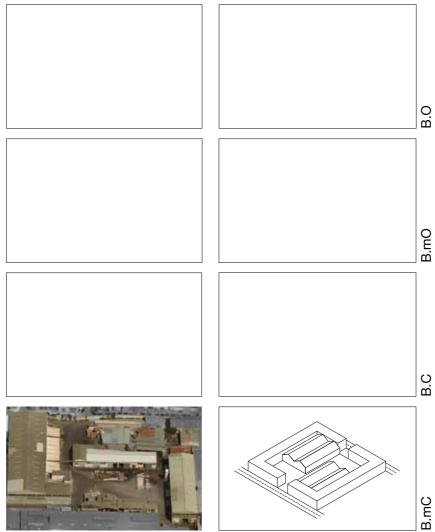




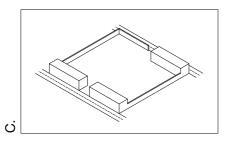


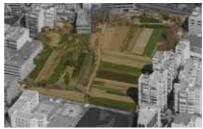
19 Pindou st. Small active industry





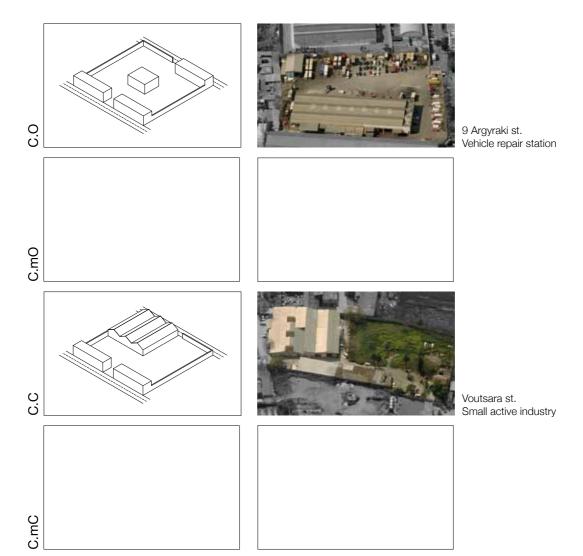
17 Agriniou st Active idustry





12 Zinodorou st. Horticulture



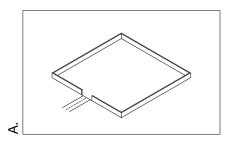


SINGLE ACCESS PARCEL

This category is consisted by parcels that are already enclosed by other parcels; being accessible by a single road, most often narrow, connecting it with the outside world. This parcels are interesting due to the fact that eventually because of their inner positioning in the block are already invisible, already enclaves. Most of them stay completely hidden by view, and are very difficult to analyse, or even investigate by onsite visit lying behind closed gates sheltering their legal or illegal activities.

They are of diverse nature housing all different activities found in the area from small active industries and hauling businesses to abandoned horticulture plots and obsolete free plots or old housing areas now habituated by Roma populations searching security in their invisibility. In most cases they are of modest dimensions – being the residual space of other activities – and in most of the times their limits are defined by the limits of their neighbouring parcels leaving them the opportunity to use the given space freely depending their activity.

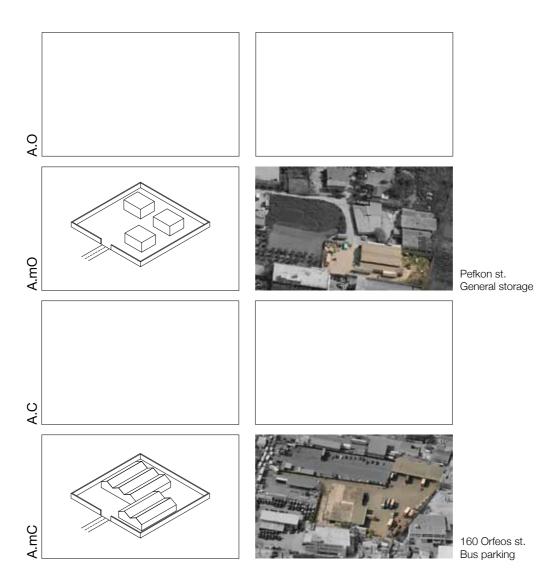
Here, it is represented in the best way possible the essence of Eleonas, in its extreme of cases. A parcel being well placed in the in-between space left by other enclaves, forming a new enclave reserved from view, reserved from any interaction with the outer world, becoming container of anything possible and at the same time expressing itself by its invisibility, its anonymity, its absence.





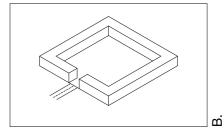
17 Naxou st. Material stocking

A



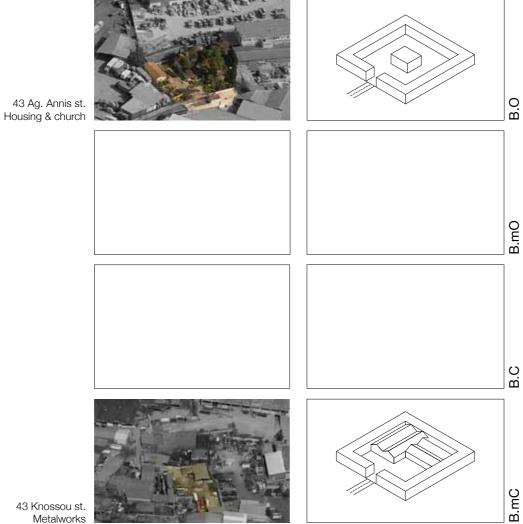
157



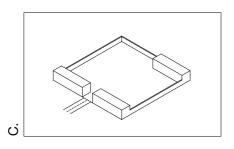


125 Orfeos st. Abandoned Roma camp





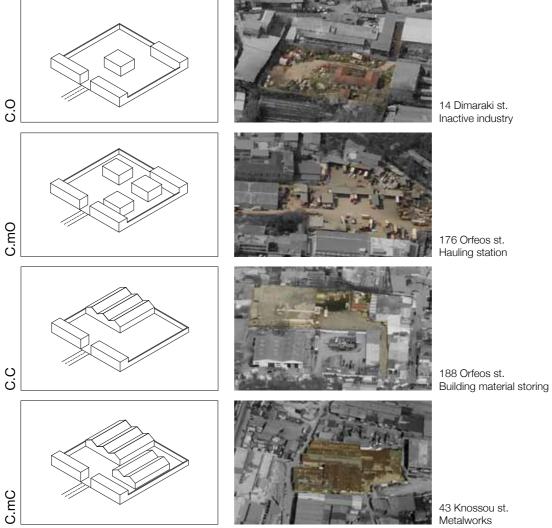
43 Knossou st. Metalworks





29 Dimaraki st. Storing









Dross - Eleonas



Empty parcel in Agiou Polykarpou street, Eleonas, September 2012

"THE RESIDUUM IS NOT INERT"

Dross: noun \dräs, dr\dos\

- 1. the scum that forms on the surface of molten metal
- 2. waste or foreign matter: impurity
- 3. something that is base, trivial, or inferior³³

Etymologically, the word dross indicates a state of impurity, a foreign matter, different form the intended, or just part of an unwanted majority, the undesirable by-product of both manufactured and natural processes. Waste is a predestined consequence of all natural processes, very well described by the Second law of Thermodynamics where in the context of entropy of a system, "perfect internal disorder" is synonymous with "equilibrium"34 . When work is produced by a system, entropy accumulates being afterwards dissipated in the form of waste heat. From this fate couldn't be excluded urban growth, where in the process of expansion waste is constantly produced. But in the city, we could never arrive to total disorder, as the third law would assume.

In architecture there are things that come together forming ensembles, there are great interties, important scissions in the city that regulate tendencies. There are things that change and things that does not change. Eleonas is one of these items in the city, an enclave that changes constantly in its own consistency, but acts in a regulatory manner for the whole of the organism of which is a part, Athens. It could be seen as dross in its current transitory phase, maybe a mosaic of parts that are dross and parts that are not, and that is what makes him special, but certainly not as waste that has to be "cleaned". Dross is a medium in order to understand further, after having an idea, of what Eleonas is made off, which more global dynamics have formed him. Comprehending its more profound idiosyncrasy.

On Lars Lerup's manifest of stim & dross, in a world dominated by time rather than space, a distinct separation between activity and inactivity appears. The city is conceptualized as a living, massive, dynamic system, a huge ecological envelope of systematically productive and wasteful landscapes where stim as in stimulation and dross as in junk (referring to inaction), both act in tandem creating tension and opportunity. Space is not only thought as a physical entity, bus as catalytic actor in the urban tissue.

"Pools of cooled air dot the plane, much like oases in deserts. Precariously pinned in place by machines and humans events, these pools become points of stimulation-stims-on this otherwise rough but uninfected hide, populated only by the dross-the ignored undervalued, unfortunate economic residues of the metropolitan machine." 35

If we take this analogue to the contemporary city, stim characterizes the areas within a metropolitan region of intense, where connections between humans, their activities and the programs produced to accommodate them intersect. On the other hand, dross characterizes the inactive landscape, the vacant urban space typically found separating the stims remaining undervalued, the vast inbetween, or peripheral areas where distance and disconnection prevail. ³⁶

These places are the results as well as the cause of an ever-increasing polarization: between private and public, interior and exterior, between the spotless landscape of corporate campuses with its artificially undying nature and what is considered as abandoned and disintegrating residue. They are composed in other words, of "a succession of islands of decreasing entropy in a world which entropy as a whole tends to increase"38. Pope identifies this accelerated disorganization as not only spatial, but also social and political. Pope finds in these "empty" spaces, in the formless residue the potential for resistance to the excessive organization of form, to the absolutism of the closed corporate islands. In this programmatic and morphological void, traditional categories are dissolved, and possibilities for alternatives emerge³⁹. "The residuum is not inert"40.

They exist resisting, urban sub-systems which operate within a broader system, with a certain amount of "closeness", which is bound to receive pressure, when the outside world is undergoing rapid change, because of supra-urban or even supra-national forces. In a globalizing international economy and in a context in which cities strive to modify and upgrade their international position and image, such inert and "poorly" functioning sub-systems as Eleonas could be seen are a handicap. Spatial discontinuity and fragmentation may be a vehicle for resistance and defense of urban communities, economic sectors and marginal groups against rapid and continuous modernization or against an external imperative to "compress" time and space.41

We live in a "throw away society" 42, not only throwing away produced goods and spaces, but also being able to throw away or, at the very least, reassess values, life-styles, stable relationships, attachments to objects,

buildings, places, people and received ways of doing and being. The critical question however is whether it is feasible, tolerable or even desirable for every individual citizen, local community, population group, political agent, economic sector or production sub-system to follow and adapt to rapid transformations and to cope with instant obsolescence and ephemerality of both public and personal value systems.⁴³

Alan Berger in his book manifesto "Drosscape" is the first to talk about dross as an element in the main body or at the periphery of the urban tissue to be "scaped", resurfaced, and reprogrammed for adaptive reuse. "...one may described drosscaping as a sort of scavenging of the regional urbanized surface for interstitial landscape remains".44 Drosscape is in part necessary; our cities naturally create waste space as a product of their growth. First of all the realization that such spaces exist and then being able to identify them, is of utter importance, then understanding their nature regarding a further action, whichever that could be is the base of any study towards in that direction. The value of "Drosscape" as a tool of identification and decoding becomes imperative.

- 33. Merriam-webster dictionary (merriam-webster.com).
- 34. Encyclopaedia Encarta.
- 35. Lars Lerup, 1994, "Stim and Dross: Rethinking the Metropolis", Assemblage, MIT Press, pp. 82-100.
- 36. Berger, Alan, 2006, "Drosscape: Wasting Land in Urban America". Princeton Architectural Press. NY.
- 37. Rem Koolhaas, 2002, "Junkspace", October, Vol. 100, Obsolescence. MIT Press, pp. 175-190.
- 38. Albert Pope, 1996, "Ladders", Architecture at Rice 34, Houston, Texas, pp. 207.
- Thomas Doxiadis, 2001, "The Athenian stripe", Metapolis 2001: The commporary (Greek) city, Athens.
 Albert Pope, "Ladders", pp. 219
- 41. P. Sapountzaki, L. Wassenhoven, 2003, "Spatial Discontinuities and Fragmentation of Urban Areas The example of the Elaionas of Athens"
- 42, P. Sapountzaki, L. Wassenhoven, 2003
- 43. Toffler, A. (1971), Future Shock, Pan Books, London
- 44. Alan Berger, 2006, "Drosscape: Wasting Land in Urban America". Princeton Architectural Press. NY.



View of the Acropolis from Leoforos Kifisou, September 2012

ELEONAS, WHICH DROSS?

After Berger "Dross emerges out of two primary processes: first as a consequence of current rapid horizontal urbanization (or what some refer as "sprawl"), and second as the leftovers of previous economic and production regimes, which are catalyzed by the drastic decrease in transportation costs (for goods and people) over the past century".⁴²

These two processes are trying quite vulgarly but nevertheless very efficiently to explain the main roots of this phenomenon. They are accumulation and attrition and they both have similar origins, the balance in between production and consumption, changes in long term policies of a country, economical shifts and last but not least technological progress. However these common roots, they have opposing effects on the territory, the first occupying more land when the second is abandoning it.

The production of waste landscape through accumulation comes as a direct product of Post Fordism, urban expansion, and the city taking over freely more and more territory. It is the same mechanism that created "sprawl" and dispersed territories, and it is exactly where these types of landscapes can be found.

Attrition on the other hand represents almost the opposite process that has created and still creates waste landscapes, that of deindustrialization. It is what physically stays behind previous economic and industrial activities, the process of abandonment, the process of the urban tissue forming holes on its own body, the process of decay. This process can be observed in the postindustrial sites, situated where it used to be the periphery, the limits of the urban, but now due to the vast expansion of the city can be considered being in the center.

In general drosscapes are not only results of soley accumulation or attrition, they can be a product of the combination of both. For example the exurban drosscape is not only the result of urban industries and land uses polluting the rural hinterlands; it is also the result of the city encountering at its periphery already-polluted and spoiled landscapes of rural exploitation. Then the moment arrives that due to the current rapid horizontal urbanization and the city's new land claims, we find ourselves witnessing the creation of new vast voids that are to be incorporated in the urban tissue.

On this theoretical base about the creation mechanisms of dross, Berger carefully classifies drosscape sites into such categories as landscapes of transition (LOTs), like temporary storage centers; landscapes of infrastructure (LINs), underused rail or highway right-ofway; landscapes of obsolescence (LOOs), such as landfills and water-treatment facilities and abandoned factories; landscapes of exchange (LEXs), obsolete malls and other retail facilities; and the "brownfields", contaminated lands previously utilized by industry.

Eleonas, although as said before is very generalist and dangerous to call him drosscape in his totality. Surely it has pockets that do not function but does has activities that do function, people living in it and a very strong intrinsic character, but still Berger's observations could be useful to explain and maybe categories of mechanisms that produce dross in our modern urban environments. So in Eleonas, dross is mostly product of the process of attrition, what physically stays behind previous economic and industrial activities, but obviously not only since the creation of Eleonas as an Enclave comes partially as a result to the process of accumulation, the fast expansion of the city that leaving Eleonas without time to react, has enclosed him in his current physical limits.

In Eleonas dross belongs mostly to three categories. First the landscapes of transition, were empty parcels and abandoned construction sites are in transition, related to real estate and state speculations. Then, the landscapes of infrastructure with the various parking lots of the hauling companies being always in an ad hoc situation to be removed and be positioned in a new hauling centre outside Athens. Finally we have the landscapes of contamination which is the main category for Eleonas, including all the abandoned factories and post industrial sites, related to production that now is ceased.

In conclusion Bernardo Secchi and Paola Viganò theorizing the porous city during the "Le Grand Paris" competition have added the element of time, not only working on the present and past production of dross but looking as well the next potential drosscapes to be created. Something very crucial for current Eleonas being still in transition towards a state that we cannot predict with accuracy.

"toute époque laisse son dross, des espaces résiduels dans lesquels on peut reconnaître le changement, la "porosité de fracture". Le dross (ou residuel) concerne non seulment les sites en transformation aujourd'hui, mais aussi ceux de demain, dans un horizon de 15 à 20 ans."⁴³

Hence the question that arises is what kind of process should be followed in order to tackle such a challenge, seize the opportunity that occurs, from the moment that the city pushed by heroic incentives, rational thinking or just by the need of more space have to make itself forward in order to reclaim this spaces.

Berger calls for an "entrepreneurial, proactive approach". Since inner-city drosscapes, as he rightly observes, "have few stakeholders, caretakers, guardians, or spokespersons,"

designers must take the initiative in identifying and researching sites. Working from this analysis, their main task is then to find or even to create the "clients" who might implement a solution. But that is not the case of Eleonas, a highly fragmented area that has countless stakeholders, has already a generic plan (plan 95) to be followed, but most of all an area that is not the "tabula rasa" that many proclaim, it is an place with contents and a very rich historical backbone to be respected.

the attempt of "grand planning" could just seek solutions for the present needs of the city, probably erasing all traces of Eleonas as we know it, creating large scale urban planning that most probably would take very long time, to be completed with the danger of being obsolete by the end of it's completion, or just not happening, imagining the complexity of such a project in the current economical situation of Greece, a country without any experience in this field. And that would not only happen because of the scale of it, but mostly because of the difficulty of the nature of each one of them, and the complexity of the technologieconomical and cal. legal solutions that should be applied. Probably dross Eleonas must be firstly evaluated locally, remediated, and ultimately re-integrated into the metropolitan landscape parcel by parcel under a general set of urban rules that will regulate the application of each solution and new program inserted in order to finally achieve a coherent solution adapted to the urban environment of today and tomorrow, safeguarding the rich continuity of the area.

^{42.} Alan Berger, 2006, "Drosscape: Wasting Land in Urban America", Princeton Architectural Press. NY.

^{43.} Équipe Studio 09, 2011, "La ville poreuse, un projet pour le grand Paris et la metropole de L'après-Kyoto", pp. 119.

^{44.} Robert Fishman, 2006, "Waste not, want not", Cite, Summer 2006, Houston, Texas, pp. 36.

Absence





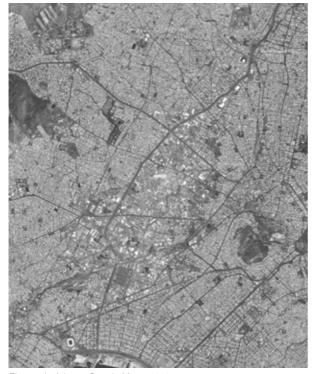
Eleonas is a strange mosaic, a vulnerable system of enclaves, agglomerations of secretive worlds, spaces hidden, spaces empty. A system of roads without views, strong perspectives without deepness.

Eleonas itself, an enclave for the city. With a body cut in parts by the same axes that the city protects and sustains his existence, his totality. An important presence that functions as an absence.

His edges operational, act like screens. We traverse with speed his body, but we don't perceive his being. It's an invisible entity, existing, material. Acts as a single element, an important whole structuring the rest of the city. A structuring absence.



Map of Tokyo (EDO), 1849



Eleonas in Athens, Google Maps, 2012

Roland Barthes wrote for the palace of Tokyo:

"L'une des deux villes les plus puissantes de la modernité est donc construite autour d'un anneau opaque de murailles, d'eaux, de toits et des arbres, dont le centre lui même n'est plus qu'une idée évaporée, subissant là non pour irradier quelque pouvoir, mais pour donner à tout le mouvement urbain l'appui de son vide central, obligeant la circulation à une perpétuel dévoiement. De cette manière, nous dit-on, l'imaginaire se déploie circulairement, par détours et retours le long d'un sujet vide." 45

Compared to Tokyo, Eleonas acts on the side of the very centre, assuring the edge of the entity it serves. Now he lies in the middle, he acts as a buffer zone between the city's different parts, thus becoming a centrality of its own. Conducting fluxes, arranging directions through its mass, going unnoticed.

We perceive it as a void, because its nature is not of our every day routine, non-conforming to our urban needs for order and consistency. His nature is other, introvert, protective in retreat. "Bien sûr, nous aimons penser la ville comme intensité. Il n'en reste pas moins qu'à l'envers des villages adoucis de splendeurs, la ville renonce à sa plénitude. Ou alors à l'écart, ou alors en retrait : à Berlin par exemple, à nouveau, dans la constellation de ses cours enchâssées.

La ville ainsi se tient en retraits : dans ses terrains rayés, dans ses palissades, dans l'humanité de ses mariages en blanc. L'absence est une valeur urbaine."

The city can exist in absence; here it is not the void, but an inert presence. Eleonas is a different part of Athens, a huge potential of its own qualities. An urban retreat that has always kept his distance from the city, always serving it, always adding value.

^{45.} Roland Barthes, 2007, "L'Empire des signes", Seuil, Paris 46. Christian Gilot, from upcoming publication

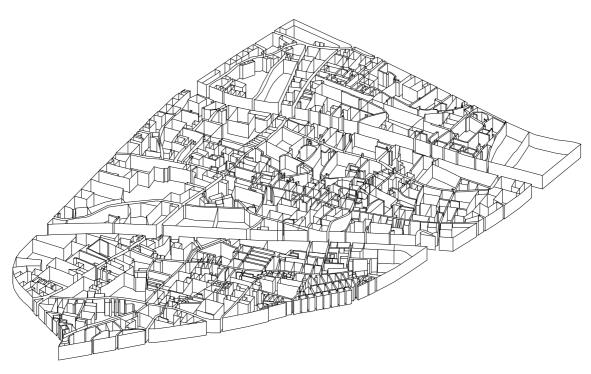
Vulnerability





It is the very nature of Eleonas that is always standing as the main obstacle for anyone wanting to approach. A fragmented, at first incomprehensible agglomeration of enclaves, smaller or larger entities, forming a hard to guess mosaic in perpetual transformation, an archipelago of different elements, that seems to be incoherent. Different temporalities, different appropriations of the same whole with high enough screens to hide what is to be hidden.

Attractor of speculation and ephemeral associations, providing space and compliance, a character that at this current phase of his history leaves him vulnerable in current tendencies. It is the first time, after so many centuries of productive transaction with the city of Athens, that it becomes a magnet of consumerism. Malls and supermarkets can push the last productive activities out of the area, leaving it in oblivion of its own continuity in time and its abiding potential.



Eleonas as Eleonas

At this moment Athens that is trying to reposition itself during a difficult crisis, having to push forward in order to compete with other cities in global scale, like products do, to attract investment and regain its regional competitiveness, potentially leaving Eleonas exposed to the dangers of speculative action and "fast track" entrepreneurship with a flexible regulatory plan ready to be bended.

Under these circumstances with the future of Eleonas is not clear, redefinition of the area's character and the question of its desired future looks more crucial than ever. The question that arises, is what do we need for Eleonas and what kind of priorities we should set for the city, currently redefining itself. Especially, with the conjuncture of the present crisis, the relationship with consumption has been revisited moving towards new examples that need exploring. So, the until recently vision of transformation of Eleonas into a tertiary paradise for supra-local commerce with some production in it, looks more and more irrelevant and the city should not yield to the pressure.

What action is needed? Which planning, for whom? The need for change of paradigm is imminent, and should answer some needs that become more appropriate than ever before.

- 1. Valid recognition of the on-going transformations of the area, the problems it faces, what are its needs, its erroneous dynamics and the current prospect of the population situated in it and on its edges, living and working there, avoiding global solutions without first understanding their direct consequences.
- 2. Regain of its productive heritage and position, through the revisiting of its historical continuity, searching viable solutions for the long term, utilising its resources, in respect to its already damaged environmental system.
- 3. Constitutions of effective mechanisms and processes that would reassure control, taking into account substantial and enlarged participation, of the main actors, coordinating all different levels in planning, from the end-user to the potential new "clients", adding value in the existing experience and knowledge of the area which cannot be considered as abandoned or a tabula rasa.

- 5. Setting an hierarchy of resource allocation and interventions starting from the needs of the existing population, the protection of the historical continuity (archaeological/agricultural/industrial) and wealth of the region focusing on the sustainability of any new intervention over time, in relationship to the real current needs of the city.
- 6. Redefinition of the existing old building stock. Reuse and reinterpretation, for new activities, taking distance from the absolute concept of conservation (except from some cases of industrial buildings of particular importance).
- 7. Local Evaluation, remedy, and ultimately re-integration into the metropolitan land-scape parcel by parcel under a general set of urban rules that will regulate the application of each solution and new program inserted in order to finally achieve a coherent solution adapted to the urban environment of today and tomorrow, safeguarding the rich continuity of the area.

"The inferno of the living is not something that will be; if there is one, it is what is already here, the inferno where we live every day that we form by being together. There are two ways to escape suffering it. The first is easy for many: accept the inferno and become such a part of it that you can no longer see it. The second is risky and demands constant vigilance and apprehension: seek and learn to recognize who and what, in the midst of the inferno, are not inferno, then make them endure, give them space."

Italo Calvino, Invisibe Cities

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