

ATHENS
AS
HOME

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ΠΕΡΙΛΗΨΗ

Με την πρόταση *Αθήνα : το σπίτι* μας επιχειρείται η αντιστροφή της επικρατούσας νοοτροπίας που απαξιώνει το δημόσιο χώρο. Οι Αθηναίοι προσκαλούνται να ζήσουν μια νέα αστική εμπειρία και να επανεξετάσουν τη σχέση τους με την Αθήνα. Οι επισκέπτες επίσης καλούνται να εκτιμήσουν τις αστικές αθηναϊκές ποιότητες και να κάνουν την Αθήνα προορισμό για ανακάλυψη, και όχι πια μόνο σαν στάση μεταξύ του αεροδρομίου και των νησιών. Μιας νέας μορφής μνημειακότητας, που επιβάλλεται μέσω κλασικών υπομνήσεων (συμμετρία, γεωμετρικά σχήματα) συνδυασμένη με ευαισθησία για το ατικό τοπίο αποκαλύπτεται στο σχεδιασμό.

4 ΣΤΡΑΤΗΓΙΚΕΣ ΠΑΡΕΜΒΑΣΗΣ

01/ ΠΡΑΣΙΝΟΣ ΔΙΑΔΡΟΜΟΣ

Η φύση καλείται να μπει στην πόλη, σε μια προσπάθεια διαλόγου του φυσικού με το τεχνητό. Εάν οι περισσότερες ευρωπαϊκές πόλεις χαρακτηρίζονται από ένα γραμμικό φυσικό στοιχείο (ένα ποτάμι), αυτές οι ποιότητες αναδεικνύονται εδώ. Φυσικά στοιχεία, όπως δέντρα, χαμηλή φύτευση, γρασίδι, νερό και άμμος, διατρέχουν την Πανεπιστημίου σαν ένα πράσινο ποτάμι, ένα πράσινο αστικό διάδρομο.

02/ΠΡΟΤΥΠΑ ΚΥΚΛΟΦΟΡΙΑΣ

Ένα πυκνό δίκτυο αλληλοδιαπλεκόμενων πεζοδρόμων συναντά τις λωρίδες της κίνησης του ποδηλάτου, διαπερνώντας την γραμμικότητα του υπάρχοντος άξονα. Η χρήση δέντρων και ξύλινων στεγαστρων αφενός προστατεύουν από τον ήλιο, αφετέρου δημιουργούν νέες προοπτικές στο δρόμο. Το ανθρώπινο μάτι αντιλαμβάνεται το χώρο σε μια απόσταση 100μ, οπότε διαφορετικά σημεία ενδιαφέροντος εντοπίζονται ανά 100μ.

03/ΚΟΙΝΩΝΙΚΕΣ ΔΡΑΣΤΗΡΙΟΤΗΤΕΣ

Η ποιότητα του αστικού περιβάλλοντος αντανakλάται στις προαιρετικές και κοινωνικές δραστηριότητες που λαμβάνουν χώρα και προκαλούνται από την πολλαπλότητα των επιλογών οικειοποίησης που προσφέρει το περιβάλλον και ο αστικός εξοπλισμός. Ένα παγκάκι κάτω από ένα δέντρο, ένας παιδότοπος, ένα αμφιθέατρο για συζήτηση παράγουν ποιότητες που οδηγούν στην ανάπτυξη κοινωνικών σχέσεων.

04/ ΕΜΠΕΙΡΙΑ – ΙΣΤΟΡΙΑ – ΜΝΗΜΗ

Νέα τοπόσημα ταυτότητας αναζητούνται με άξονα τη σύγχρονη ιστορία:

Η ΠΛΑΤΕΙΑ ΤΩΝ ΠΟΛΕΩΝ (ΤΡΙΛΟΓΙΑ)

Η τριλογία σχεδιάστηκε από τους αδερφούς Hansen σαν μια εξωστρεφή δημιουργία : το αρχιτεκτονικό στυλ θα έδινε στην Αθήνα μια εικόνα αντάξια αυτής που θα ήθελαν οι δυνάμεις της Ευρώπης να έχει. Αυτή την ποιότητα εξωστρέφειας ενισχύουμε σήμερα. Η πλατεία των πόλεων τοποθετεί την Αθήνα στο δίκτυο των ευρωπαϊκών και μεσογειακών πόλεων, επιχειρώντας ένα διάλογο με αυτές.

Η ΠΛΑΤΕΙΑ ΤΩΝ ΤΕΧΝΩΝ (ΔΙΚΑΙΟΣΥΝΗΣ)

Πρόκειται για την πλατεία του πολιτισμού και της πολιτιστικής παραγωγής, σε άμεσο συσχετισμό με το Rex. Ένας τόπος δημιουργίας, εμπορίου, αγορών, συναυλιών όπου βρίσκεται αφενός ένα αμφιθέατρο σε διάλογο με τον τοίχο των προβολών, αλλά και κάποιες κλειστές αίθουσες για συναντήσεις των διαφόρων ομάδων. Η πλατεία απευθύνεται περισσότερο στις νεανικές ομάδες και προγραμματίζεται να φιλοξενεί εκδηλώσεις καθ'όλη τη διάρκεια του χρόνου.

Η ΠΛΑΤΕΙΑ ΤΗΣ ΔΙΑΦΑΝΕΙΑΣ ΚΑΙ ΤΟΥ ΔΙΑΛΟΓΟΥ (ΟΜΟΝΟΙΑ)

Είναι ο τόπος της αντανάκλασης και της πολιτικής διαφάνειας, που επικρατεί το νερό, τόσο σαν συμβολισμός, όσο και σαν στοιχείο δροσισμού. Ένα πλήθος αυτόνομων καρεκλών, που τοποθετούνται κατά βούληση, συμπληρώνει τον αστικό εξοπλισμό

EXECUTIVE SUMMARY

Through *Athens as Home* project we try to invert the prevailing mentality in Greece of disregard towards public space, by giving incentives so that the public space of Athens might be felt as home. Athenians are invited to live a new experience of the public space and re-appreciate it. Visitors are also welcome to appreciate the Athenian urban qualities and make Athens a real destination to visit, not only considering it as a stop-over between the airport and the islands.

A new monumentality, that imposes itself by its classical reminders (symmetry, geometrical shapes) combined with sensibility for the Athenian landscape and attitudes, is rediscovered.

4 INTERVENTION STRATEGIES

01/ GREEN CORRIDOR

Nature is invited into the city in an effort to combine mineral and natural elements. If most of the European capitals are characterised by the existence of a linear natural element that penetrates the urban tissue (a river), we will try to reveal some of these qualities. Natural elements, such as trees, soil, grass, bushes, sand and water, are running down Panepistimiou Street as a green river, creating a green corridor of urban comfort.

02/ CIRCULATION PATTERNS

A dense network of intertwining pedestrian roads mingles with bicycle lanes, breaking the linearity of the existing perception of the street. The use of trees and wooden canopies protects the pedestrians from the sun while giving a new horizon to the street. The human eye perceives space fully up until 100m, so, different points of interest are produced every 100m.

03/ RECREATIONAL & SOCIAL ACTIVITIES

The urban environment quality is projected into the optional/recreational activities, that are created by the multiplicity of options that the urban space or various equipment provides. A bench to sit under the shadow of a tree, a playground where children can play, an amphitheatre for discussion can produce these qualities and lead to the development of social activities.

04/ EXPERIENCE - HISTORY - IDENTITY

New identity landmarks are sought and thus are proposed:

THE SQUARE OF THE CITIES (TRILOGY SQUARE)

This complex was designed in the late 19th century by the Hansen brothers and was a creation with intentions of extroversion : the architectural style aspired to give Athens the identity that the European world wanted the city to have. This quality of extroversion is chosen to be enhanced today. This square will function as a reminder of the role that Athens plays within an extended network of the European and Mediterranean cities.

THE SQUARE OF THE ARTS (DIKAIOSUNIS SQUARE)

The square of culture and creative production in immediate relation with REX
It is a place of creation, commerce, bazaar, concerts. An amphitheatre, a screen serving for projections, but also closed spaces for gathering, guarantee the opportunities of appropriation and presence of people, especially young. All year long events are to be organised.

THE SQUARE OF TRANSPARENCY AND DIALOGUE (OMONOIA SQUARE)

It is the place of reflection and political transparency, where the water is present. in its symbolic essence, but also as a bioclimatic feature. This square will have movable chairs as an element of urban equipment that can function under total liberty.

1. INTRODUCTION

1.1 SOCIETY AND THE ATHENIAN URBAN CHALLENGE

The object of the competition is the restructuring of the center of Athens around the spine of Panepistimiou Street. The challenge is to provide an urban space capable of giving birth to new conditions of urbanity and to produce a positive image that shall inverse the actual state of degradation of the Athenian centre.

What can be identified as a major problematic situation in Greece is the disregard of public space. Through **Athens as home** project we try to invert this mentality by giving incentives to the local population so as the public space of Athens could be felt again as home. Athenians are invited to live experience the public space and re-appreciate its qualities.

What Athens needs is not only a well designed urban space, but also a strategic vision for its development, a strategy which will incorporate citizens, new functions, an extrovert city profile and 24hour uses altogether under a sustainable project.

Athens as home project aspires to generate an Athenian identity that its citizens would be proud to assimilate. Hence, provided a right infrastructure, people could hopefully appreciate the value of public space, of social densification, as well as the value of walking and using means of transport alternative to the car. Furthermore, the social densification of the centre will have a significant economic impact for the local economy of Athens.

1.2 URBAN ACTIVITIES & BEHAVIOURAL PATTERNS

According to the theories developed by Jan Gehl in his book *Cities for people*, urban structures along with planning, influence the human behaviour.

Jan Gehl describes the types of activities that take place in cities as:

- *necessary / functional activities* : activities that are obligatory, impervious to the impact of the physical environment's quality.
- *optional / recreational activities* : the quality of the urban environment generates the multiplicity of optional activities, depending on what people can do and how they can appropriate the different equipment. The duration of necessary activities can thus be prolonged.
- *social activities* : they result from a public space of good quality and the optional activities that are produced. Within this frame, social interaction, children's play, breaks from work with colleagues, conversations and even simple observation are enabled.

Until today, the "necessary activities" have been taking place mostly in the centre of Athens. However, by creating a space that would generate new patterns of appropriation of the city, people will be able to find new opportunities that will call them back to the centre of Athens, for recreational or optional activities. Moreover, tourists will mingle with the local population, appreciate the contemporary urban landscape and prolong their stay in the capital of Greece, which until nowadays was limited to the visit of Acropolis.

Overall, Athens should function as a factor of environmental, economical and cultural sustainability.

2. INTERVENTION STRATEGY

2.1 HOLISTIC APPROACH

The choice for naming the project ***Athens as Home*** reveals the intention to change the prevailing attitude towards the public space in Athens. The lost respect for the public is to be regained as Athenians develop a “pride” of the common space of their city that would subsequently lead in its turn to its appropriation. The project represents a new vision of the city that can be realised only through a holistic approach, since the city is a complex mechanism incorporating altogether citizens, institutions, visitors, investors and local community.

The project of the intervention aspires to incorporate good design into a total socioeconomic approach of the development of the Athenian centre. We believe that the intervention goes even beyond the notion of the “project”: it is better described as a dynamic “process”. It is thus more important to define the joining forces that will be part of this strategy and will be called to collaborate on the intervention than to propose a final site plan. The effects of an intervention of such a scale are expected to be also long term and to influence interventions and behaviour patterns of the whole centre of Athens. This means that both stakeholders and shareholders are to be considered and satisfied. Moreover, the intervention will engage both public and private sector and henceforth, healthy synergies are expected to be produced.

In a broader scale, Athens will be redefined as a contemporary and competitive city that will (shall) act as a cultural & economic motor for Greece, and whose place in the map of European cities will be upgraded.

2.2 NEW CIRCULATION PATTERNS

Panepistimiou Street has always been a street for car use while, in the recent memory of Athens, functions as a main axis for the access to the center. This fact combined with the bond of the greek population with their car as a private means of transportation, makes it difficult to create a public acceptance for the rejection of cars out of Panepistimiou street.

However, it is an acknowledged truth, that we should open up to alternative ways of mobility, either public as the tram, or individual, as the bicycle. Circulation changes in the area of intervention can only be considered in a broader context of reconfiguration of

the transportation scheme, not only for the centre of Athens, but also for the close suburbs of Athens. The optimal scheme of transportation combines more than one typologies. The fast metro network can serve the access to the centre, where the commuter will change for the tram or the bicycle. For this purpose it is urgent to create more parking spaces around the metro stations that are around the centre of Athens and the suburbs (such as Ambelokipoi, Holargos or Ag.Dimitrios) in order to facilitate the access to the centre.

As far as the area of intervention around Panepistimiou street is concerned, a dense network of intertwining pedestrian roads mingles with bicycle lanes, breaking thus the linearity of the existing perception of the street. Rental bicycle parking’s are proposed every 200m and smaller bicycle parking in a more frequent rhythm. The tramway, with 24hour function, is expected to be the transportation spine of Panepistimiou.

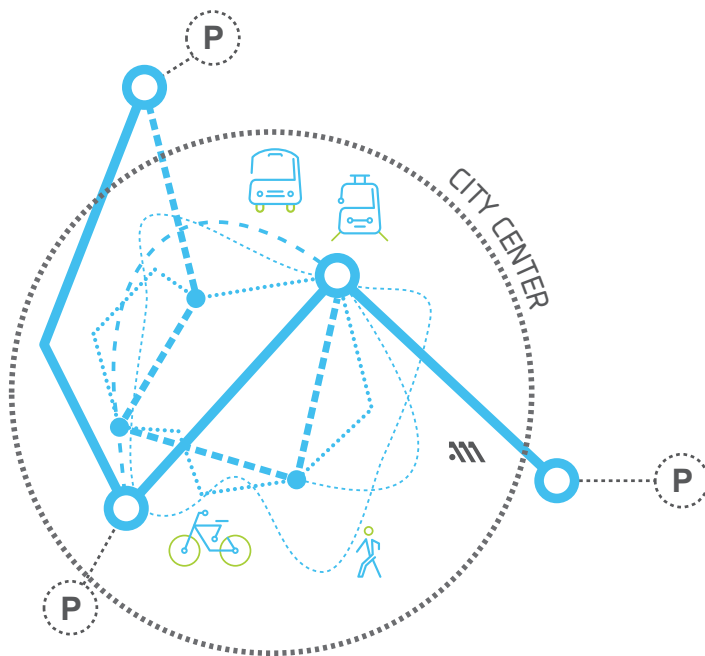
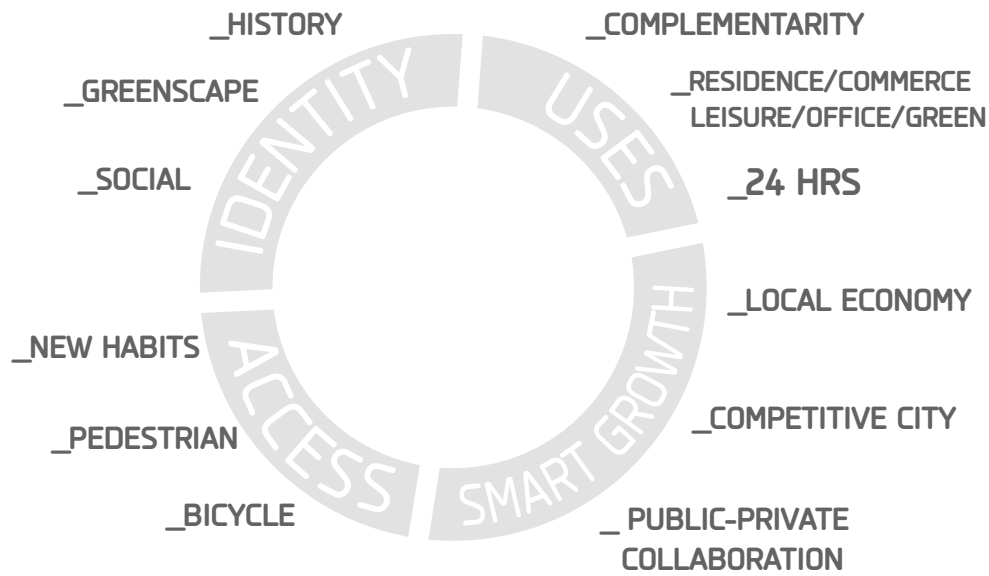
2.3 PLACE AND IDENTITY

Athens as home project aspires to use existing urban qualities and identities in order to enhance them and capitalise the local community assets, creating consequently a common vision. This vision shall be reflected into every Athenian soul.

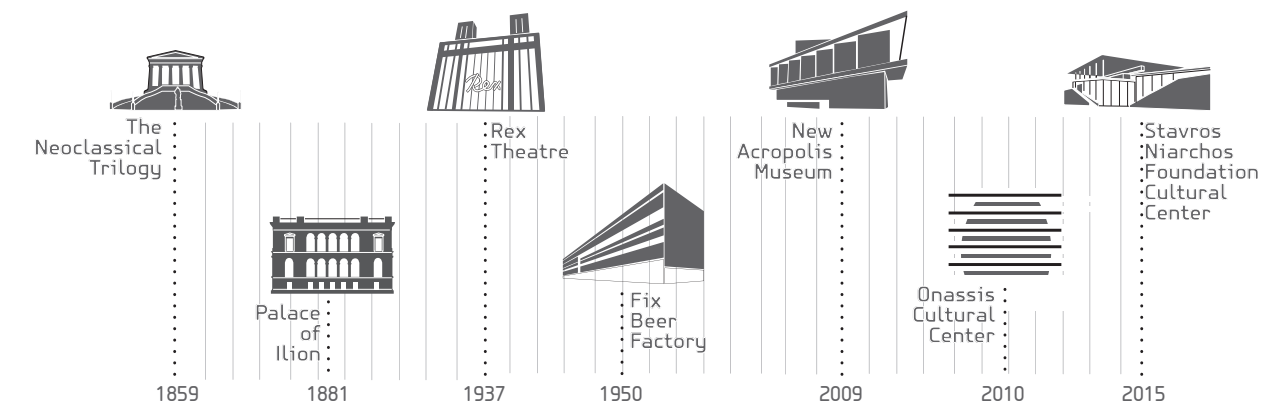
The project presents thus an excellent opportunity to reconsider and enhance the contemporary greek multicultural identity. Athens is a city dominated by the hill of Acropolis, in both a physical and a symbolic manner. Ancient greek and roman antiquities are omnipresent within the city fabric. Nevertheless, a contemporary intervention shall embody the recent history of the city as well, both for the memory of local population and the image of Athens towards its visitors.

During the late 19th and the 20th century, and especially since its declaration in 1834 as the capital of the modern greek state, Athens has witnessed major cultural and urban changes that are not perceived in an explicit way within the urban fabric.

More precisely, during the Greek 20th century- and especially after the Minor Asia destruction- the vision of a territorial expansion is being replaced by the vision of a cultural revival of the new Hellenism that seeks to vindicate its European integration. Hence, Athens becomes the locus where intellectuals and artists



TRANSPORTATION PATTERNS DIAGRAM



ARCHITECTURAL LANDMARKS OF CONTEMPORARY HISTORY

produce works that reveal their need to combine two heterogeneous qualities, these of “greekness” and modernism.

The city of Athens bears evidence of these new quests due to urbanization: almost fifty blocks of flats are built downtown under the influence of Art Deco, Art Nouveau and the Modern movement. Within this context, public space not only hosts but also enhances the creation of a cultural network that links together people and the city. Private houses, coffee shops, restaurants, bookstores and theatres witness a vibrant and rich cultural and artistic productivity. What is new is the sentient and collective character of these efforts.

We can identify within the broader limits of the area of intervention some indicative cases of places that used to function as tokens of an urban, cosmopolitan, but nevertheless Greek Athens. Their main reference point were the members of the so-called “1930s generation” as well as all those intellectuals, scholars and artists who tried to modernize Greek identity.

First of all, the house of the neurologist Angelos Katakouzenos and his wife Leto used to be one of the great salons littéraires of the so-called “1930s generation”. It is located on Amalia’s Avenue and today functions as a museum. Secondly, the house of Nikos Hadjikyriakos-Ghikas in Kriezotou street, near Syntagma square, that is a typical example of the mid-war architecture, designed by Kostas Kitsikis. Another example is the so-called Loumidis’ Loft, a café littéraire, where Hadjidakis, Gatsos, Embirikos, Tsarouhis, Moralis, Elitis, Theodorakis and others gathered together. It was founded in 1938- under the dictatorship of Metaxas- in Stadiou street, next to the Nikoloudi Arcade. We should also mention the Dance School of Koula Pratsika in Omirou street at Kolonaki, designed and built in 1934 by George S. Kondoleon. It is the school where Rallou Manou- founder of the “Greek Choreodrama”- studied. In addition to the above, we could also include in this network of cultural cores the basement of Karolos Koun’ s “Theatro Tehnis”, the REX stage of the National Theatre and the bookstores of “Estia” and “Ikaros”. Last but not least, the art-nouveau house where Maria Callas lived and which was designed by K.Kitsikis at 61 Patisson Street, remains unused (it is currently a squat).

In quest of modernism and under conditions of urbanization, people and the city used to interact in a vivid manner. The previous examples altogether are indicative of the crucial role that Athens per se played in the molding of the zeitgeist of the Greek 20th century, as a city that tried to reform its “greekness” within an international and more European context. Today, the idea

of uniting these cultural poles could offer a network of cultural spaces that would complete the contemporary cultural structures of the city, which continues to redefine itself through a multicultural prism.

2.4 SOCIAL DENSIFICATION OF PUBLIC SPACE

The current distribution of uses along the axis of Panepistimiou is characterised by a majority of office and administration spaces, as well as some retail. This contributes into high peaks of frequency on daytime and a very low frequency during evening hours.

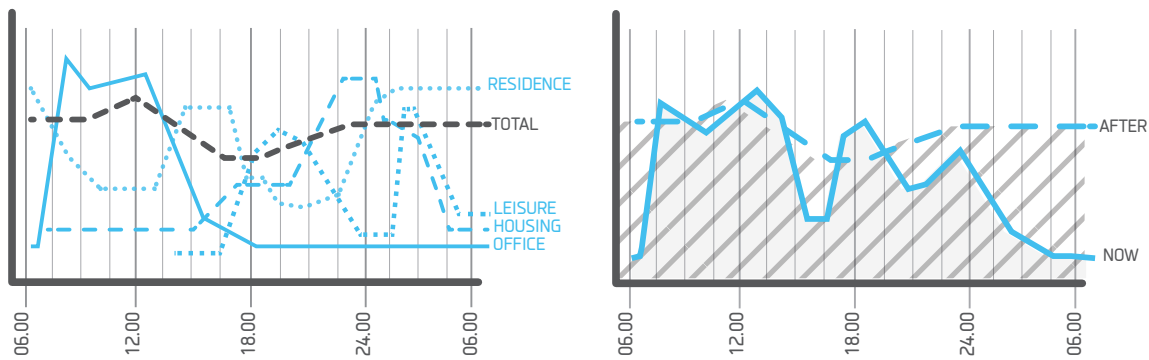
The project Athens as home proposes new functions along Panepistimiou Street that will enhance the 24hour-use of the public space. New uses introduced in vacant buildings are proposed to be complementary to the dominance of offices: residence or student housing, culture and recreation. Cafes, bars and restaurants ensure the visitors’ frequency.

The installation of housing uses, shall also guarantee a 24h frequency. More precisely, a social group that is known for its 24hour long activities are the students. Paradoxically, Athens doesn’t have a big percentage of student housing, even though there are many educational institutions in the centre (Law School, University of Athens, Economic University of Athens, School of Architecture). This social group can also function as an urban watcher through their presence. They can be a safety valve for the maintenance of the urban space quality.

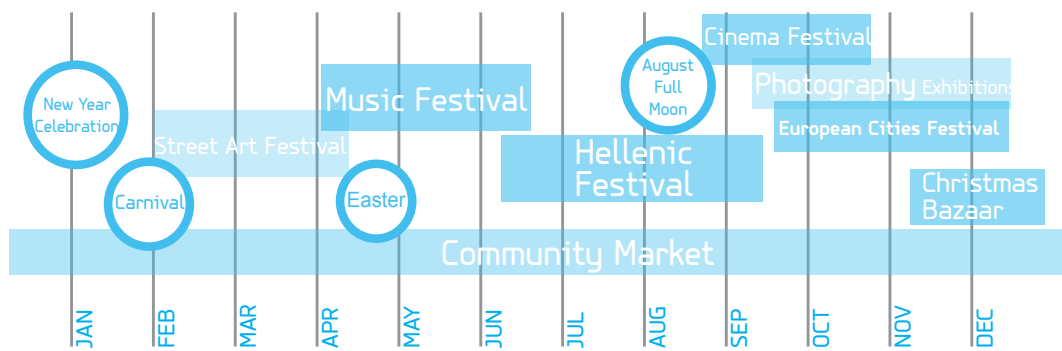
On the other hand, people will frequent more to the centre of Athens if more events attract them to visit. Yearlong events are thus proposed, that may have as a venue either the different squares, or all the axis of Panepistimiou.

Today, the centre of Athens is socially segregated. The aspiration of the Athenian urban project is to maintain the Athenian qualities, to reconcile the different social groups and to offer a tool for urban development. Through different city policies on the prices of the rents, as well as the policies on the mixity of uses, the centre of Athens will provide chances for its healthy regeneration.

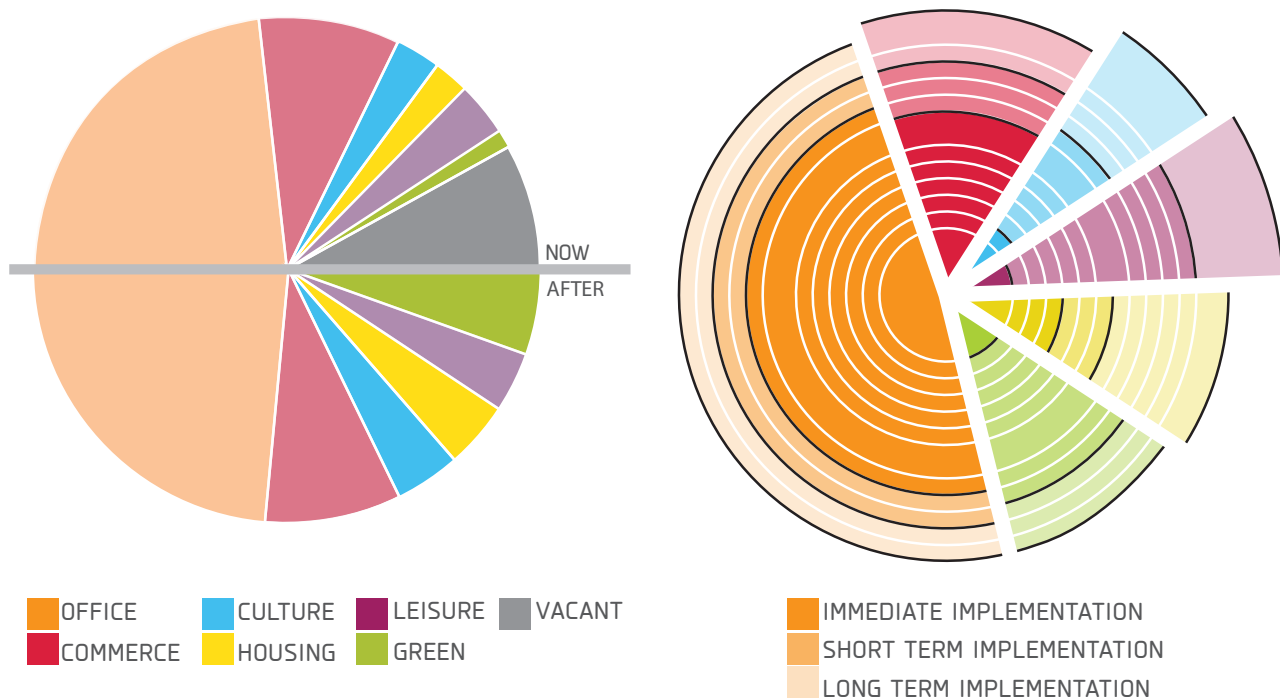
Good quality of public spaces can only function together with social and public policies. The redesign of Panepistimiou Street and the Squares bears elements to facilitate appropriation and generate social relations, but that alone cannot ensure the durability of the project.



CIRCULATION OF PEOPLE IN THE INTERVENTION AREA DURING DAY & NIGHT
 EMPHASIS ON THE COMPLEMENTARITY OF FREQUENCY FOR THE INTRODUCED USES



YEAR LONG FREQUENCY OF THE CENTER OF ATHENS THROUGH EVENTS ORGANISATION



3. DESIGN CRITERIA

3.1 SUSTAINABILITY BY DESIGN AND INNOVATION

The intervention plan has integrated architectural and engineering features that work together for the optimum result. Minimum site earthworks are a prerequisite in order to have a rapid construction that will have the minimum disturbance for the adjacent commerce and offices. Bearing that in mind, dry constructions are preferred for the pavements.

In addition, local materials and local manufacturers will be preferred, so that the project will have a high sustainability grade on one hand, and work as an economic source for greek enterprises on the other hand.

The materials and the forms proposed are studied in such a way so as to collaborate with the Athenian climatic conditions, in order to provide thermal and visual comfort at the pedestrian level. The proposed paving materials, for instance, are cool and do not absorb heat and radiation.

Concerning innovation techniques of construction, the project proposes a system of paving of open joints for certain surfaces. This system helps the circulation of water in case of rain, as well as the circulation of air that produces cooling effects during summer. It also facilitates the access to the infrastructure and henceforth, it guarantees in addition the clean aspect of the pavement.

We believe that sustainability can be low-tech and come also from the simplest and most traditional solutions : for instance climber plants offer excellent shading and cooling to the pergola elements. Mediterranean flora offers many examples of plants that will be used.

Last but no least, only one element of high- tech sustainability is proposed. Parallel to the bicycle lane, a special corridor for joggers is proposed that has characteristics of captivating the energy produced through vibration and movement and stores energy into the energy grid of Panepistimiou Street. This element is proposed to be subject of a special research and investment, and uses Panepistimiou Street as a prototype for experimentation. This feature will offer publicity both to the urban project and the enterprise that will finance its installation and maintenance.

3.2 NATURE AS GREEN CORRIDOR

Panepistimiou street will have the characteristics of a green corridor that provides natural, thermal and also aesthetic comfort. In order to give a distinct material substance to this strategic decision, the project invites nature into the city in an effort to combine mineral and natural elements into a new image. If most of the European capitals are characterised by the existence of a linear natural element that penetrates the urban tissue, and we are referring to a river, we will reveal some of the qualities of this natural feature. Natural elements are running down Panepistimiou Street as a green river, creating a green corridor.

3.3 SMALL SCALE OF URBANITY AND EXTROVERSION

The redesign of small scale equipment along the axis and main squares will contribute to the small scale of space appropriation. Through different types of benches, small amphitheatres, information panels and playground, the opportunities for social densification multiply. Moreover, the character of the orientation panels contributes to the highlight of the different historic monuments around the axis, the communication of projects and events that take place. What is more, the use of a branded icon as well as a smart phone application intend to create a project that will be easy to understand, access and appropriate.

3.4 SAFETY AND SECURITY

The introduction of new uses, as well as the detailed study of lighting features intend to provide not only safety and security to the different areas of the project, but also a different character to each area

3.5 AESTHETIC UPGRADE OF ADJACENT URBAN SPACE

The project follows a simple, minimalistic design that proposes a new monumentality, which imposes itself through its classical reminders, such as symmetry and different geometrical shapes.

A step further can be made through an aesthetic renovation of the buildings around the intervention area. For instance, a major problem of both aesthetic and functional aspect is the exterior units of the air-condition mechanisms.



4. FOCUS ON THE BASIC AREAS OF INTERVENTION

4.1.1 PANEPISTIMIOU STREET

Panepistimiou street will have the character of a modern urban boulevard, that is designed to be used by pedestrians, bicycles and tram.

GREEN CORRIDOR

Along the previous street lanes, a green corridor is designed in order to provide a corridor of natural shadow and ventilation. It is composed of stabilized earthen ground or natural soil and grass. The proposed trees that are introduced are endemic and characteristic of the Athenian landscape. For instance, the tree of Mimosa (*Acacia farnesiana*) is introduced for its colour and scent, but also as a reminder of a typical Athenian tree: Panepistimiou was also known as “the boulevard with the mimosas¹”. In this proposal, an attempt is made to reintroduce this tree to the citizens’ minds. This green corridor provides natural, thermal and aesthetic comfort and the use of trees and wooden canopies protects the pedestrians from the sun while giving a new horizon to the street.

ARCADES

The arcades are a common urban characteristic of Athens. They are a physical extension of the pavement, so a similar pavement is proposed. In addition, special lighting features are added in order to create an attractive environment during night time.

PAVEMENT

Two types of pavements are used:

- 1/ Pavement of typical construction made of
 - linear concrete elements
 - triangular: a distinctive pavement, made of the shape of triangle will give identify at the most central areas of Panepistimiou. The branding image of the “new street” will be made of this tile, inspired from the Kleanthis and Schaubert city centre Triangle.

- 2/ Pavement with open joints

The proposal introduces an innovative feature for paving Panepistimiou Street. A structure of concrete elements that are joined together through an elevated system that does not use mortar.

¹“boulevard with the mimosas” (=λεωφόρος με τις γαζίες) in Athens: tracing the city through history and literature as guides, Giouhalas T., Kafetzaki T., ed. Estia.

The advantages of such a system are :

- quick construction, minimum disturbance during construction period
- easy access for the infrastructure and the networks
- aesthetic added value (photo of everyday situation)
- in case of rain : the water runs off the open joints
- in case of hot summer days : cooling effect by the air that circulates

What is more, this system can be combined with a system of cooling towers. Elements that can bear on their rooftop solar thermal panels can function as a cooling tower that will heat water and through pumps it will be diffused under the open joint pavement and produce a cooling effect.

ENERGY MANAGEMENT STRATEGY

Panepistimiou can become a pilot project for the production and use of green energy. Adjacent buildings of public or (willing) private property can contribute to the inauguration of a sustainable solar energy and water management strategy. For instance, photovoltaic installations on rooftops of these buildings could provide the energy for the lighting features and water tanks on their basements could store water for use during warm months

EQUIPMENT

According to studies, the human eye perceives space fully up until 100 meters. It presents thus an interest to create points of interest at least every 100 meters. Panepistimiou street, from Syntagma Square up to Omonoia Square is more than 1km long. So, various elements are introduced as mini-landmarks, that can be spaces to sit, eat, relax, play, meet, but also differences in the vegetation are introduced.

More precisely, the urban equipment includes :

_benches and covered benches : the places to sit, rest and observe proliferate in the axis of Panepistimiou and all the possible areas of intervention. Along with the typical bench, we propose a series of covered benches where climber plants are providing the necessary shade, as well as benches that have also a table.



_the typical greek “**periptero**” (kiosk) is redesigned in an attempt to make it more compact and aesthetically more coherent to the holistic design approach. In some cases, a grouping of two or three kiosks is proposed. In that way, the owners can share the space, but also the different night shifts. In that way, most of the kiosks will succeed in remaining open even during night-time.

_**rental bicycle station** : the bicycle station is a unit for rental of city bicycle. The design offers the investor of the rental bicycle project a confidence that bicycles are protected from random accidents, since they are elevated. This semi-elevated structure acts also as a local marking point, easy to point out even from a long distance and at the same time works as an element of emblematic design.

_**wifi access** : We consider the Internet connectivity as one of the future basic human rights, so the proposal is to turn Panepistimiou street into a territory of internet access.

_**orientation-information panels** : it is important to be reminded of the historical context of the surroundings and also to find the way in the city. The orientation panels have a map that covers a five-minute walking distance and information on the important buildings and locations. Moreover, two touch screens offer free access

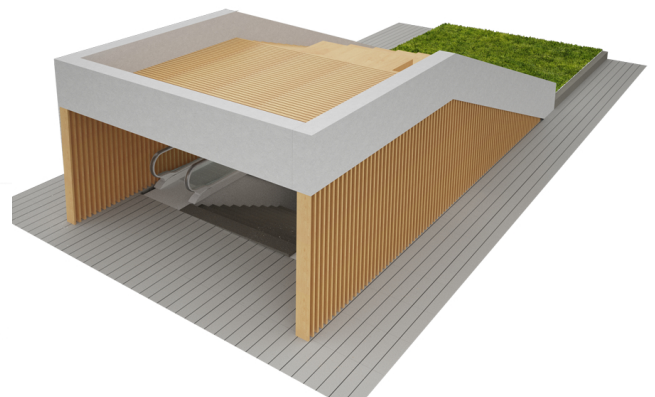
to the Internet for the ones who do not have a smart phone, a tablet or a laptop with them. Moreover this panel disposes Braille signs and loudspeakers that can be activated in the case of people with visual handicaps.

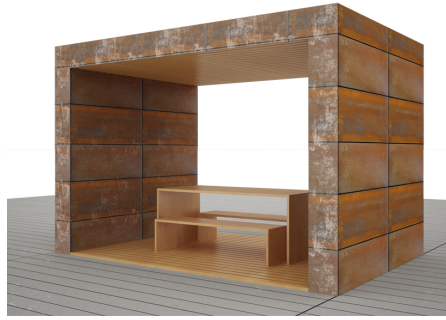
_**tram station**: is a light-shaded construction. It is a simple shape with clean geometries. It is constructed with metal beams and columns.

_Academias and Panepistimio **metro station** exit: The exit of the metro station is designed as a folded entity that bears a lightweight structure with an amphitheatre. This possibility to access the top of this object, offers a new perspective into the city and a new dynamic to the metro exit.

4.1.2 PATISSION STREET

Due to the separation of the tram lanes, the remaining in between space for bicycles and pedestrians is limited. For this purpose, the pedestrian and bicycle lanes are slightly elevated so that a physical separation is provided. Patisсион street is the axis that heads to the Parthenon. For this purpose, the plants proposed to accompany the pedestrian are kept to a short height for the non disturbance of the visual axis. More precisely, jasmin and ornamental flowers are proposed to stimulate the experience.





VARIOUS BENCH TYPOLOGIES



KIOSK (SINGLE AND GROUPED), BUS STATION



RENTAL BICYCLE STATION, INFORMATION/ ORIENTATION PANEL



4.2 OMONOIA SQUARE

THE SQUARE OF TRANSPARENCY AND DIALOGUE

Omonoia Square is considered by the proposal as the “The Square of Transparency and Dialogue”. It is the place of reflection and political transparency. Omonoia square, over the years has lost its identity. It is no more a place of political discourse, however, it can be a place of political transparency. It is designed as a space of openness and newness. It thrives from the 19th century and early 20th images of the square, where Athenians used to meet together, listen to music, enjoy their coffee or just wait for the bus.

Omonoia can be perceived as a continuous space, in the centre of which dominates a water pond, around which people can sit. It is a reminder of the design of the square during the 60's. The water element is a shallow pond that reflects the surroundings, the Acropolis but also a new political transparent ideology. The water is present in its symbolic essence, but also as a bioclimatic feature. It can also empty out the water for different

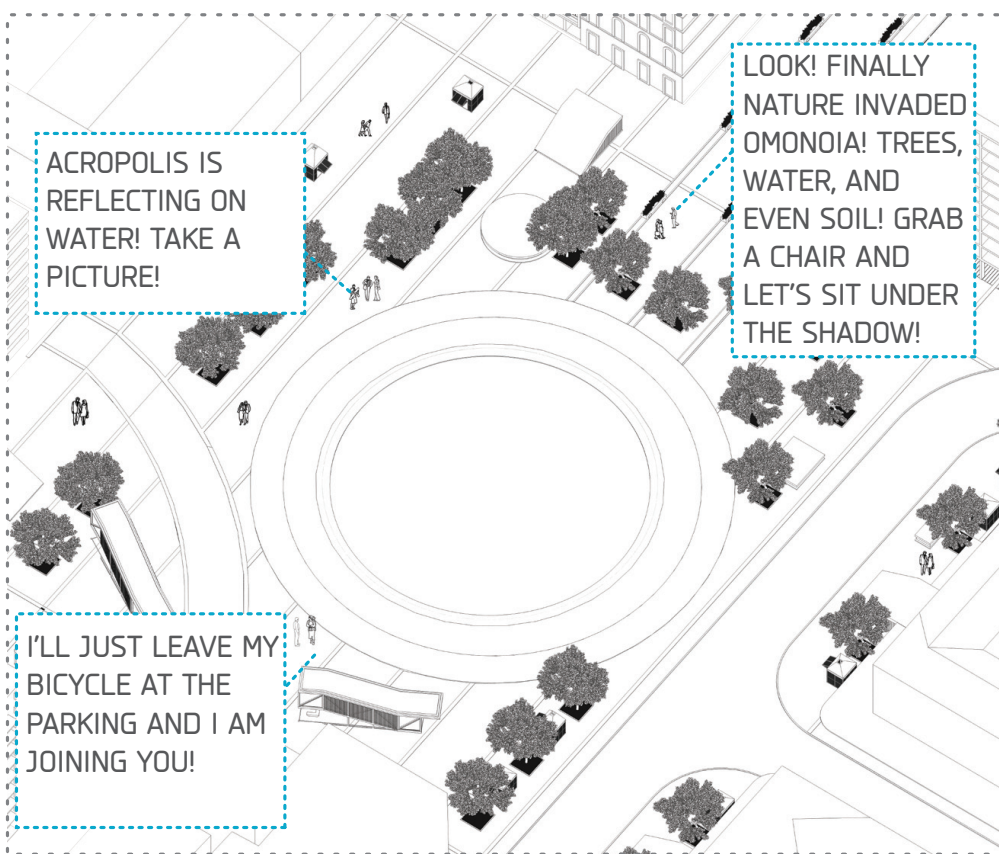
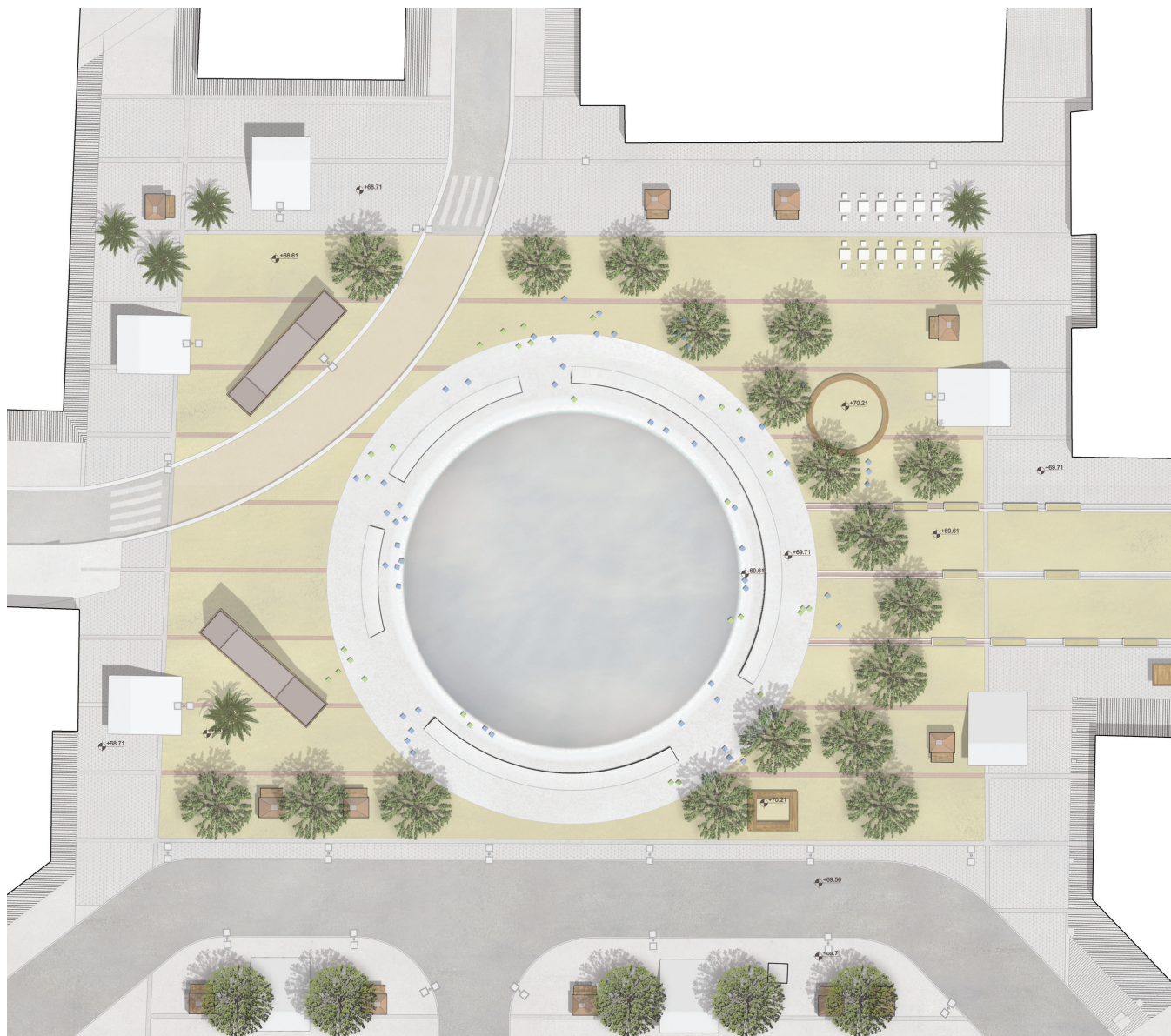
functional purposes.

The pavement is a combination of two typologies
-triangular tiles are found around the perimeter of the square and adjacent to the buildings
-the main surface of the square is of stabilized earthen ground, in an effort to re-establish the relation with the natural

This circle functions as a meeting point and for this purpose we provide a big number of movable seats, an element of urban equipment that can function under total liberty, but requires also a respect for the public space. These movable seats give enough freedom to every person to sit anywhere. A main reference for this type of public seating is the Jardin du Luxemburg, where the system of free sitting disposal is very successful.

New trees are planted in Omonoia. Mulberry trees (*Morus platanifolia*) are chosen as they are native to the Mediterranean region and tend to grow a large canopy that offers a thick shadow.





4.3 TRILOGY AND KORAI STREET SQUARE OF THE CITIES

The complex of the Library, the University and the Academy was designed in the late 19th century by the Hansen brothers. The architectural style was aspired to give Athens the identity that the European world would like the city to have. In this creation, we read an intention for extroversion.

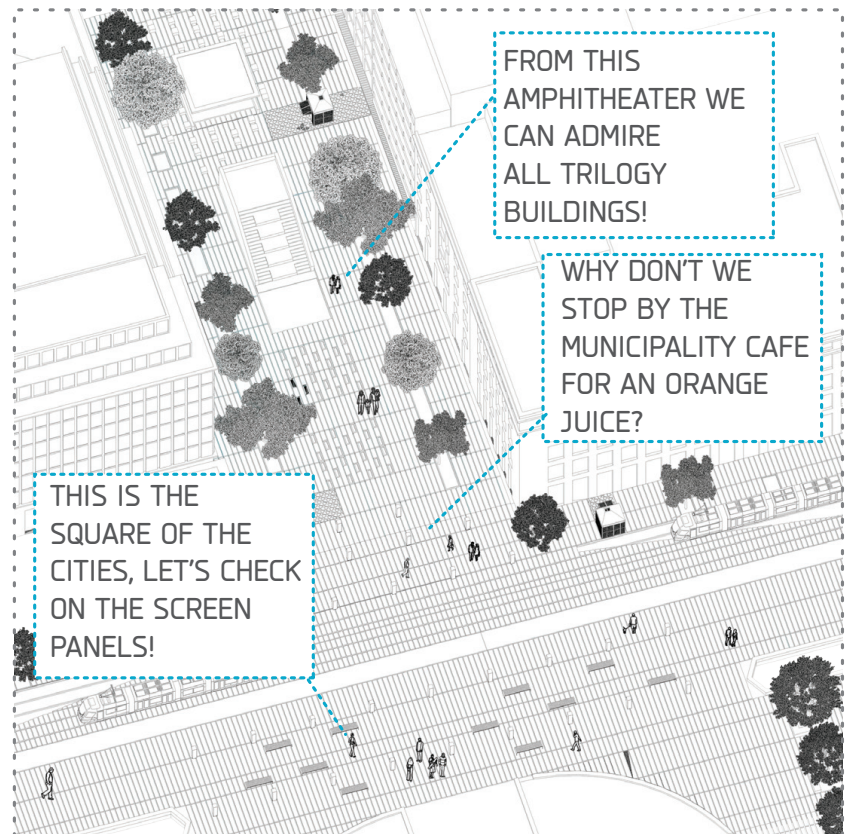
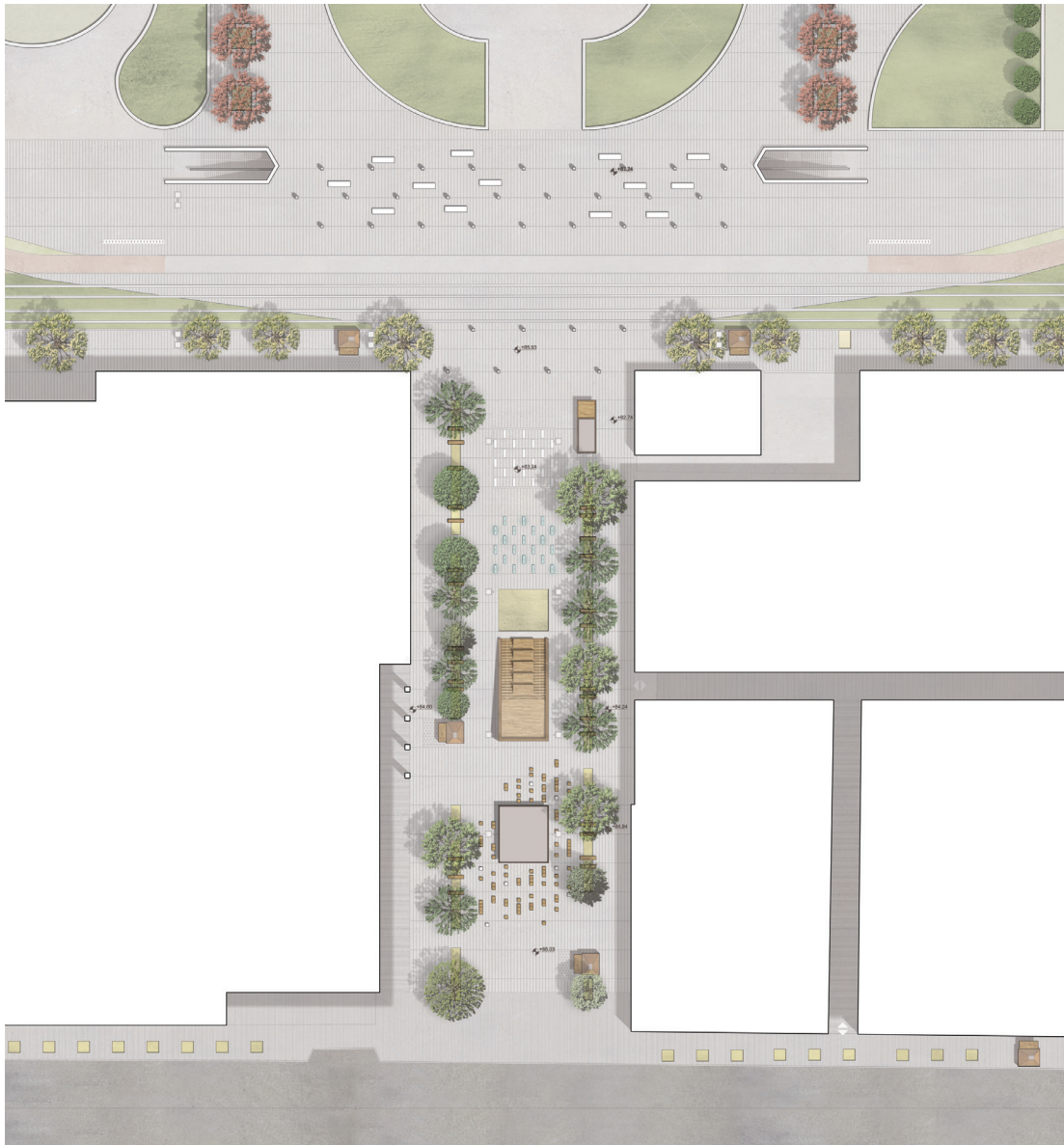
The Square of the Cities is the political centre of the axis. It is widely acknowledged that our political and territorial era is that of the cities. The cities, more than the regions or the states, are the centres of decision making and production. For this reason we aspire to present Athens to this new era and to stimulate its role in the network of cities. This square shall function as a reminder of the role that Athens plays within an extended network of the European and Mediterranean cities.

The “Square of the Cities” will incorporate in its design points of relation with other cities, each of which will be represented by an element of screen panel. Events can be held upon several occasions and this square will be a strategic point in the role and image of Athens. It is a symbolic beginning of the city-to-city collaboration.

Along the vertical streets between the university, the Library and the Academy, we find gathering points where people can meet, as well as numerous alleys. On both sides of Panepistimion, Maple trees host large benches.

Korai Street functions as a gathering point through a redesign of the exit of the metro station as an open air amphitheatre. A light structure is proposed at the south part of the street which will host a municipality café, that will contribute to the costs of maintenance of the square.



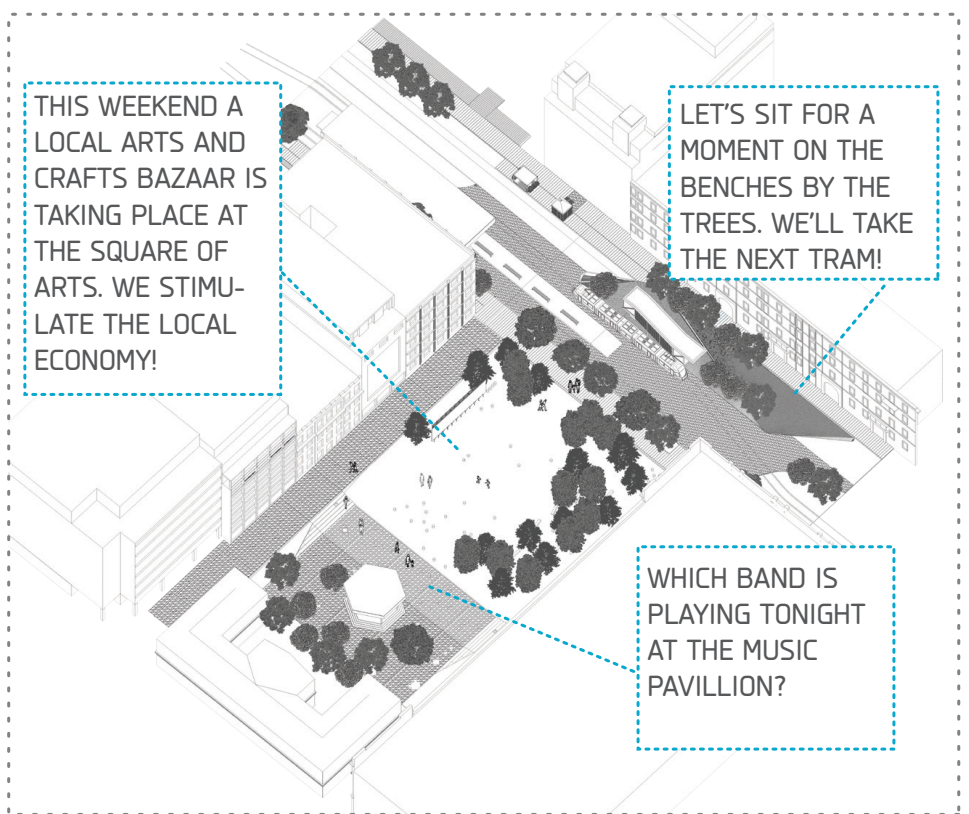


4.4 DIKAIOSINIS SQUARE SQUARE OF THE ARTS

The square of the Arts is the centre of the creative artistic production and aims to attract mainly young people. Its symbolism refers mainly to the landmarks of Rex theatre, as well as to the local character of this area that hosts most of the music retail stores of the centre of Athens. A large screen, as well as a music pavilion will offer a place for expression for the artistic groups of the city. The trees of this square are kept, since the previous plan was rich in trees, and are enhanced only in the north side of the square by stone pines.

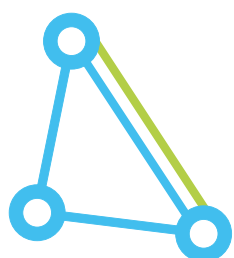
The square attempts to reveal the playfulness and vividness of a new friendly open air space. The combination of the natural soil, as well as a triangular pattern pavement give this square a distinctive identity. The tiling of the square is a vivid mosaic of colours, as a symbol of the multiplicity, the complexity and the multicultural aspect of today's Athens





5. SOCIAL ACCEPTABILITY AND COMMUNICATION OF PROJECT

It is of utmost importance to create a social acceptability and interest in the restructuring of the Athenian centre. For this reason, it is important to communicate the intentions of the project and to organise local workshops for the citizen's participation to a certain extend. On the other hand, it is equally important to give a strong identity to the project, a visual identity that redefines Panepistimiou Street as a contemporary boulevard and as a dynamic part of Athens. A logo is thus introduced that will have several applications. It will serve the urban identity and the signage. Beyond that, several applications will be made on trams or buses, and also on the rental bicycles. It can also be used on merchandise (such as mugs, T-shirts etc) that shall produce some profit for the maintenance of the project.



ATHENS
AS
HOME

Pantone 375C

C39 M0 Y100 K0

R179 G205 B71

Pantone 292C

C62 M5 Y0 K0

R69 G190 B238

AaBbCb01234

ΑΒΓΔΕΖΗΘΙΚΑΜΝΞΟΠΡΣΤΥΦΧΨΩ
1234567890

ΑΒΓΔΕΦΓΗΙJKLMNOPQRSTUVWXYZ
1234567890

5.1 LOGO

The basic inspiration in creating the logo was the historic and commercial centre of Athens, that is circumscribed by Ermou, Stadiou and Athinas Streets. Based on the latter we propose a simple and easy to be understood shape with dynamic characteristics, highlighting the parallel street of Panepistimiou. The design also is inspired by the philosophy of architectural design as featured at the Square Trilogy and the Green Corridor. Through the clear design of the logo, the timelessness of the design and the urban style that we want to deliver, are achieved.

5.2 COLOUR

Two colours have been chosen, which can be seen as a Light Blue and Light green.

The blue colour was chosen as characteristic of Athens and Greece, while the light shade represents a more contemporary approach. Green represents the concept of Panepistimiou Street as a Green Corridor.





ΠΟΔΗΛΑΤΟ
CYCLING



ΣΤΑΣΗ TRAM
TRAM STATION



ΛΕΩΦΟΡΕΙΟ
BUS STATION



ΠΕΡΙΠΤΕΡΟ
KIOSK



ΠΕΖΟΔΡΟΜΙΟ
WALKING LANE



ΤΡΕΞΙΜΟ
JOGGING



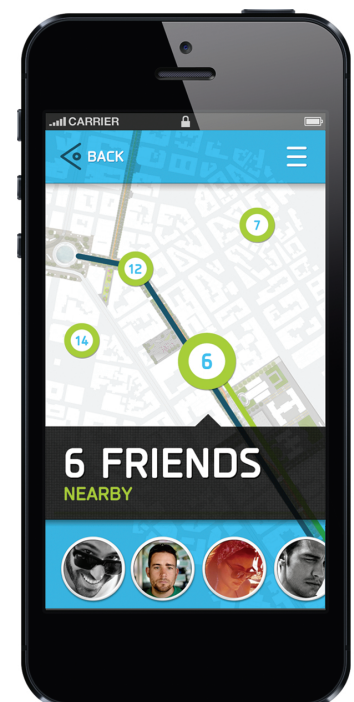
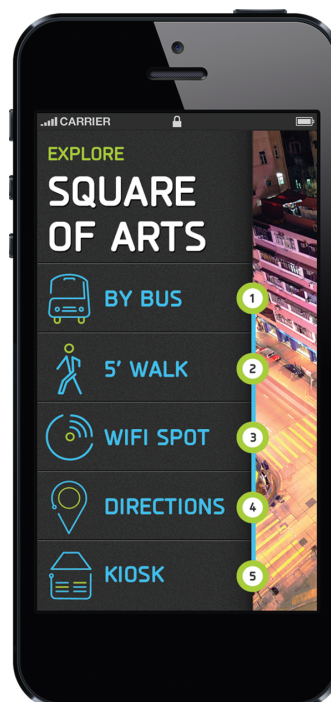
ΚΑΡΤΟΤΗΛΕΦΩΝΟ
PAYPHONE



WIFI



ΠΛΗΡΟΦΟΡΙΕΣ
INFORMATION



6. VEGETATION STUDY

6.1 CONCEPT

The thrifty attic landscape constituted during the past the object of admiration due to its particular aesthetic value. The civilization of Attica developed with respect to the landscape and to its nature, a fact that every society of every era was aware of and used to be inextricably coherent. However, during the residential and constructional development of the city, the dense fabric that occurred distorted the nature of the landscape, downgrading in the same time its contribution to the standards of living.

Nowadays, Athens is the only city among the Metropolitan capitals of the world with such a low percentage of green spaces per citizen (2.5 m²/per citizen). The conservation of natural landscape elements among the city is limited and characterized by fragmented green spaces, where essential organization or management is defective, resulting in their being inevitably devalued and abandoned

It is common sense that this aspect along with the observed constant deterioration are more than urgent to be confronted. The main purpose of the design approach is the perception of the change of the spatial values in the study area and more specifically, the morphological specification of the identity of a city in need of a more symmetrical relationship with the nature.

As a landscape design strategy, all species that are being proposed are endemic, resistant to pollution and ideal for the microclimate of Athens. The new species are chosen also for their morphological characteristics and are integrated within the architectural design in specific positions. What is more, the colour and the scent of the plants are used as signs and offer a multi-sensory experience.

Last but not least, it should be pointed out that all existing trees in the area of intervention are kept, with an exception to those stated as infected.

6.2 PANEPISTIMIOU STR

Along Panepistimiou Street, the green corridor of open spaces will be composed either by stabilized earthen ground or by natural soil and grass. More precisely, the latter will be constructed, using a special mix of grass sod with low needs of irrigation, in combination with trefoil for a better aesthetical and sustainable result.

As far as trees are concerned, both evergreen and deciduous are introduced. Alleys are created along the street with trees that are unique for their aroma, their ornamental blossoms or their canopy. There will be planted species such as, Juda's tree (*Cercis siliquastrum*), Maples (*Accer negundo*), Rusian olives (*Eleagnus angustifolia*) and Sweet Acacias (*Mimosa*) (*Acacia farnesiana*).

COMMON NAME	SCIENTIFIC NAME	CROWN DIAMETER	HEIGHT
MIMOSA	<i>Acacia farnesiana</i>	10 m	12 m
OLEASTER (WILD OLIVE)	<i>Eleagnus angustifolia</i>	5 m	6 m
CHERRY PLUM	<i>Prunus cerasifera pisardii</i>	5 m	6 m
CEDAR	<i>Cedrus libani</i>	25 m	35 m
JUDAS TREE	<i>Cercis siliquastrum</i>	7 m	5 m
TULIP TREE	<i>Liriodendron tulipifera</i>	10 m	15 m
MAGNOLIA	<i>Magnolia grandiflora</i>	10 m	8 m
STONE PINE	<i>Pinus pinea</i>	10 m	20 m
MULBERRY TREE	<i>Morus plataniifolia</i>	8 m	10 m
SOPHORA	<i>Sophora japonica</i>	10 m	20 m
MAPLE TREE	<i>Accer negundo</i>	13 m	6 m

Sweet Acacia used to be a common ornamental tree along the neighborhoods of Athens that has now been distinct, due to its displace of other, mostly foreign species. Cedrus (*Cedrus libani*) and Sophoras (*Sophora japonica*) trees will be planted as individual dominating elements on the green corridor.

6.3 PATISSION STREET

Along the pedestrian lane of 28 Octovriou Street, containers will be installed as a limit towards the tram lane. There will be planted Jasmin (*Jasminum nudiflorum*), as well as annual and perennial ornamental flowers such as Freesias (*Freesia sp.*), Gauras (*Gaura lindheimeri*), Cape Daises (*Osteospermum sp.*), Cyclamens (*Cyclamen graecum*) and Calendulas (*Calendula officinalis*).

6.4 OMONOIA SQUARE

In Omonoia square, Mulberry trees (*Morus platanifolia*) will be planted, since their relatively light weight is ideal for this location. In addition, their thick and high umbrella-shaped canopy will provide shade to the passengers or the visitors, and in combination with the element of water proposed, they redefine the state of this specific square.

6.5 TRILOGY & KORAI STREET

Along the vertical streets between Panepistimiou and Academias Streets at the Trilogy area (Ippokratous, Riga Ferraïou and Sina) alleys will be created by enhancing the existing vegetation. More precisely, Tulip trees (*Liriodendron tulipifera*) and Maples (*Acer negundo*) will receive and diffuse the pedestrians.

Along the Korai street magnolia trees (*Magnolia grandiflora*) are proposed to be planted, which will improve the relation between the existent buildings and the new design approach.

6.6 DIKAIOSINIS SQUARE

At Dikaïosinis square an attempt is made to represent the juvenile memories of the neighborhood's park, so pine trees will be added to the existing vegetation. Stone pines (*Pinus pinea*) will be planted in the perimeter of the square. During nighttime, this evergreen tree will be used in order to create an effect of moonlight, as the light of special fixtures will cross the canopy.

NATIONAL GARDEN

At the entrance of the National garden, two Cherry plums (*Prunus cerasifera pisardii*) will be marking the entrance and unconsciously invite the pedestrians to pay a visit.

 ELEAGNUS ANGUSTIFOLIA

 SOPHORA JAPONICA

 LIRIODENDRON TULIPIFER

 ACCER NEGUNDO

 CERCIS SILIQUASTRUM

 CEDRUS LIBANI

 ACACIA FARNESIANA

 MORUS PLATANIFOLIA

 MAGNOLIA GRANDIFLORA

 PINUS PINEA

7. LIGHT STUDY

7.1 GENERAL CONCEPT

Lighting is the element that guarantees the aesthetic quality of the nightscape of the urban project along Panepistimiou Street and the three squares of intervention. It is important to add that the lighting design enhances the sentiment of security during night hours and ensures the frequency of the urban space. For this purpose, a multitude of different light types is proposed, according to the character that each place will have. What is more, the typology of the proposed technology aims at minimizing the energy consumption. An indicative calculation made for Omonoia square has showed that the estimated annual energy consumption, and subsequently the total cost and the annual CO₂ emissions, can be diminished by 6.8 times.

7.2 PANEPISTIMIOY STREET

CONCEPT

The main criteria for illuminating the multi-purpose traffic routes in city centers are uniformity, high luminance and adequate anti-glare measures. Lighting levels have been selected to best balance the differing circulation zones: tram stations & tramway lines, bicycle lanes & run floor as well as paving. The general lighting of Panepistimiou str. is delivered with 8m poles, each with two bracket-mounted luminaires at the mounting height of 5 metres (paving zones) or 8 metres (tramway, cycling zones) situated every 25 metres on both sides.

A subject that has been accorded with great importance is the lighting of the arcades: they represent a physical extension of the pavements, which can be used also during night-time. However, the lack of adequate lighting has turned these spaces into non desirable and sometimes, dangerous. A proposal for lighting the arcades will turn them into safe and attractive spaces that will be a part of the pedestrian space. The arcade lighting is delivered with wall-mounted luminaires suitable for wide beam, asymmetrical light distribution emitting light upwards for indirect ambient lighting. Near the intersection of Panepistimiou and Patision streets, a hanging light installation is proposed. A light metal box supports a cylindrical luminaire, which is surrounded by plants. A metal wire makes these climber plants grow on outer sides, without interfering to the light distribution of the luminaires. The box is repeated on a grid and is supported by metal wires

7.3 OMONOIA SQUARE

CONCEPT

The lighting has been carefully balanced to deliver a flexible, playful night-time setting while maintaining the functional requirements for a city centre. Lighting levels have been selected to best balance the differing pedestrian experiences, supporting an undistracted navigation around the square.

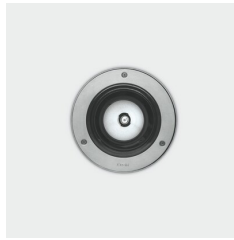
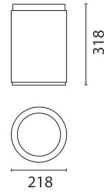
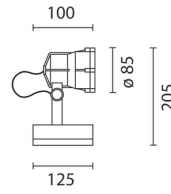
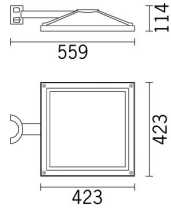
The general lighting of the square and adjoining street is delivered from twenty-eight (28) 8m tall poles, each with either one or two luminaires at the mounting height of 5 metres (square area) or 8 metres (street lighting). The fixtures are selected based on their optics and energy-efficiency characteristics. More precisely, they are characterised by LED light source, asymmetrical light distribution, as well as low glare and demand for low maintenance. The light fittings are mounted at either 5m or 8m depending on the area.

The circular water pond, which is the focal point of the plaza, is highlighted with concealed linear soft halo lighting that diminishes towards the centre of it. The darker central area of the water appears as a giant 'mirror' reflecting its surroundings, i.e. night sky, uplit trees and potentially accentuated facades. Seemingly, concealed halo lighting accentuates the concentric sitting benches, slightly dimmed in relation to the water feature lighting effect. The engraved linearity of the movable planters, ending up to the water pond, is subtly defined with integrated linear lighting. The Mulberry trees (*Morus platanifolia*) are illuminated from the ground, creating an attractive green space.

LIGHTING CONTROL

Omonoia square lighting installation is managed via a central control system. The system is programmed to automatically respond to the different hours of the evening or potential special events. Functional lighting is controlled to complement the water feature and other features avoiding unnecessary lighting of areas.

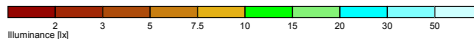
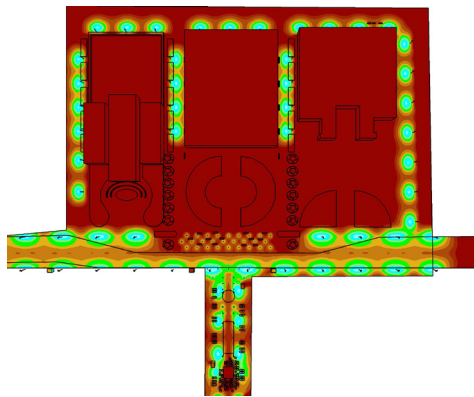
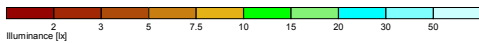
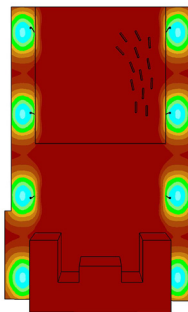
Accent lighting to sitting & inground applications is also individually controlled in order to balance the lighting effects based on the desired result. The integrated architectural lighting concept for the 125m perimeter water feature lighting achieves a peak consumption of less than 4kW of energy.



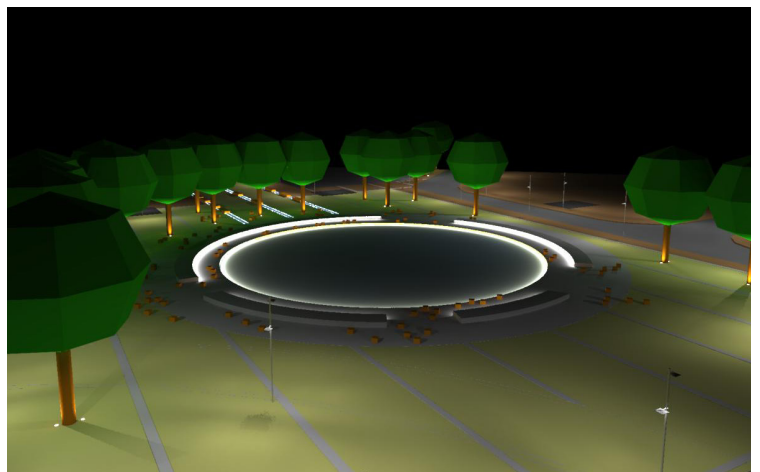
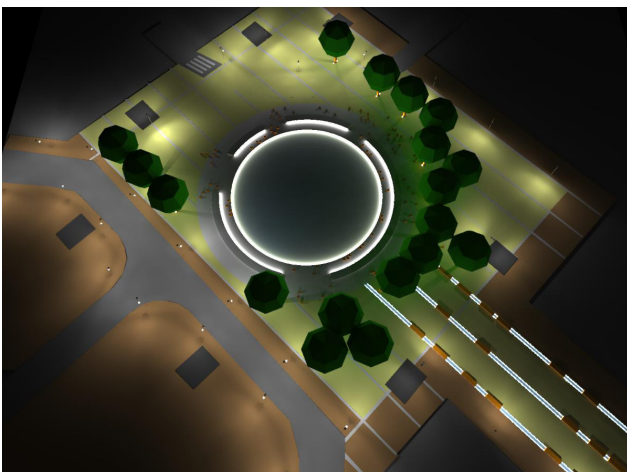
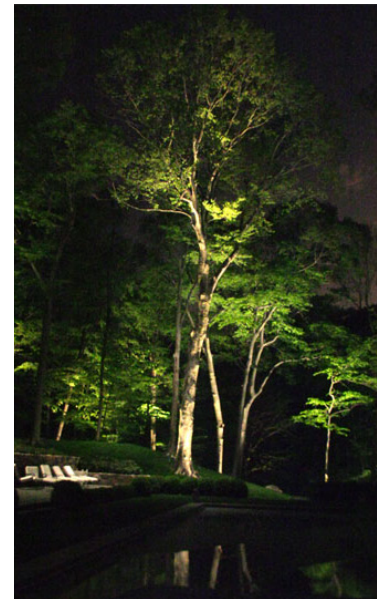
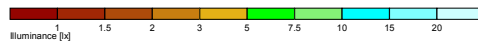
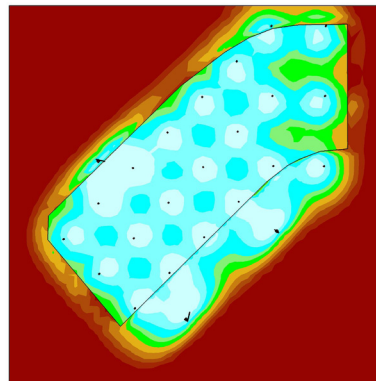
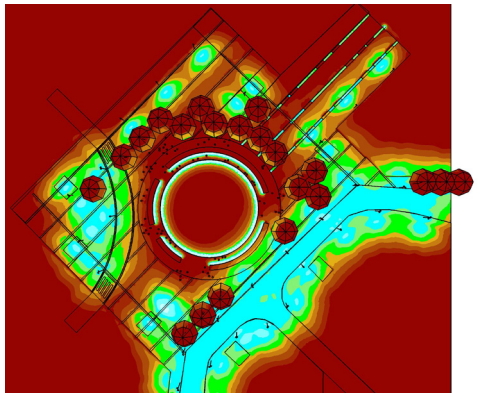
1 2 3 4
5 6 7 8

9 10
11 12 13

14 15



1-8 / proposed lighting features
9-12 / photometric analysis of proposed intervention
13 / reference image for the Dikaiosinis Square “moonlight” effect
14-15 / rendering of proposed lighting for Omonoia Square



EXISTING SITUATION: A COMPARISON

The existing lighting of Omonoia square and street is delivered from 126 lighting fittings mounted on twenty-one 14.5m tall and two 10m tall poles. The total energy consumption is 56.7kW. The results of the existing lighting scheme are: a large number of high-wattage pole-mounted luminaires is used in order to light the square from a distance, high energy consumption & total lack of uniformity. The Illuminance levels (Eav) range between 20lux- 190lux. The comparison table below indicates the benefits of the new lighting scheme of Omonoia square in terms of sustainability & cost:

7.4 TRILOGY & KORAH SQ.
THE SQUARE OF THE CITIES

CONCEPT

The lighting of the wider area of ‘Trilogia’ is delivered with thirty-two (32) 5m tall poles. The lighting levels and the uniformity achieved ensure safe pedestrians’ circulation & facial recognition. The pole-mounted fixtures are suitable for asymmetrical light distribution providing light only where needed so that light pollution & discomfort glare is minimised. The ‘Trilogia’ area lighting scheme also features two rows of uplit trees & integrated halo lighting to planters/benches. Screen panels are also emphasized with integrated lighting.

The lighting scheme of Korai square is a combination of general lighting with pole-mounted fixtures and subtle accentuation of various features such as trees and steps.

Illuminated cube seats in random arrangement around the municipality café create a playful and welcoming atmosphere.

7.5 DIKAIOSINIS SQUARE
THE SQUARE OF THE ARTS

CONCEPT

The general lighting of the main two circulation zones, on both sides of the square, is delivered from ten 5m tall poles with one light fixture each. The pole-mounted fixtures are suitable for asymmetrical light distribution in order not to interfere to the central zone of the square where projections take place. At the main area of the plaza, the lighting becomes more dramatic and playful. The daytime ‘forest’ atmosphere that embraces the screen area is transformed to a ‘moonlighting’ effect during the evening hours. Adjustable spotlights are mounted on high branches aiming down through the leaves. The result is a soft, diffused light, creating a soothing atmosphere for the projection sitting area. Amphitheatre lighting, tree accent illumination as well as kiosk lighting are also incorporated into the scheme. The steps are also illuminated through concealed lighting features.

LIGHTING CONTROL

Dikaiosinis square lighting installation is managed via a central control system. The system is programmed to automatically respond to the different lighting scenarios, i.e. screen projections.

EXISTING LIGHTING SCHEME			PROPOSED LIGHTING SCHEME			ANNUAL FINANCIAL BENEFIT [€]
ESTIMATED ANNUAL ENERGY CONSUMPTION [KWh]	COST [€]	ANNUAL CO2 EMISSION [Kg]	ESTIMATED ANNUAL ENERGY CONSUMPTION [KWh]	COST [€]	ANNUAL CO2 EMISSION [Kg]	
227.650,50	27.318,06	97.889,71	33.525,00	4.358,3	14.415,9	22.959,76

(top) table of comparison between actual and proposed situation for Omonoia Square
(down) proposal for Omonoia Square



8. MECHANOLOGICAL STUDY AND NETWORKS

8.1 ELECTROMECHANICAL INSTALLATIONS

For reasons of economic limitation, as well as rapidity for construction, there will not be any modifications concerning the main existing underground networks of public services.

8.2 ELECTRICAL INSTALLATIONS

The exterior lighting luminaires will be powered directly from the low voltage AC switchboards that will be installed outdoors (inside pillars), in selected positions over the project area. The places of the electrical low voltage switchboards shall be according to the rule of keeping the droop voltage under 3%.

The Cables will be installed in underground pipes, while every pipe will contain only one cable. The pipes will be placed under the open joints pavement. A spare pipe will be provided in the crossing of the streets for future use.

Along the routings of the pipes, inspection manholes shall be installed every 15meters.

The poles of the exterior lighting luminaires will be placed on special prefabricated concrete bases in accordance with the international standards and a junction box will be provided for each wall-mounted lighting.

Manholes shall be constructed in the base of every pole and every electrical switchboard, in the crossing of the streets as well. The low voltage switchboards, the metal constructions and the lighting fixtures will be properly earthed, according to specifications.

8.3 IRRIGATION INSTALLATIONS

For the watering of the existing and new-planted trees and grass, automatic irrigation will be provided. The installation is suggested to be divided into four sections:

1st section : From Vas. Amalias Ave to Korai Fw.

2nd section : From Korai Fw to Aioulou st.

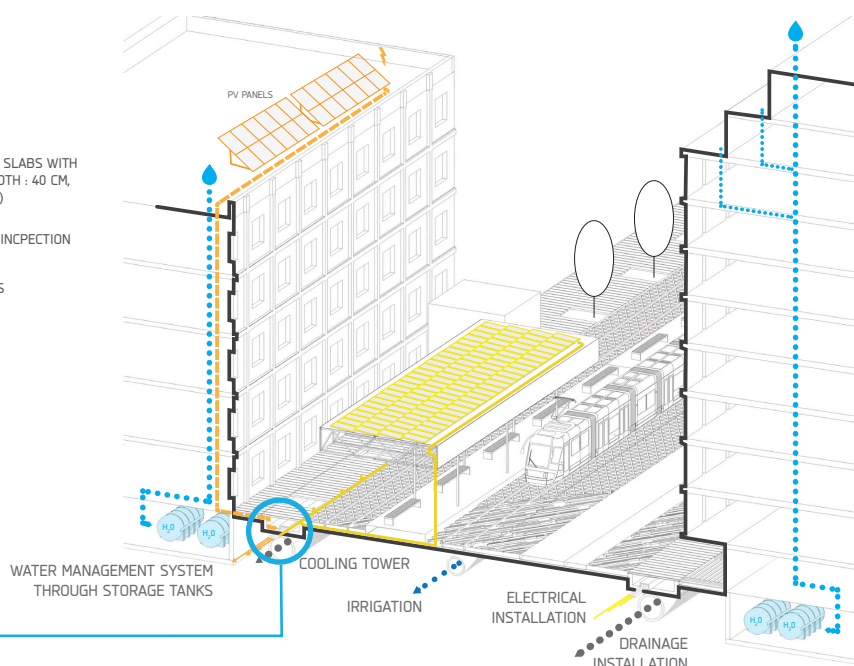
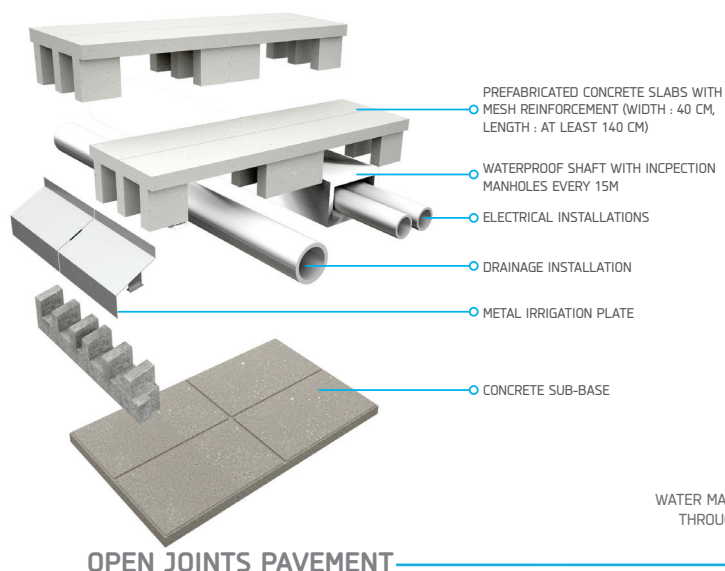
3rd section : Omonia Square Area.

4th section : 28th Oktovriou st (Patission) area.

For each section there will be provided independent water supply piping, beginning in a valve box manhole with flow meter. A secondary water piping installation coming from the main manhole will feed trees and grass at both sides of the streets.

8.4 STORM DRAINAGE SYSTEM

The storm drainage system, which will cover surface features at areas disturbed by the project works, will discharge directly into the existing manholes and then to the existing storm drainage pipes. The surface grades will be re-established for this reason, according to the architectural study.



9. FEASIBILITY STUDY

9.1 TECHNICAL IMPLEMENTATION

GENERAL

The technical solutions selected for the proposal's realisation fulfill the following design prerequisites:

- Preservation of the existing rain-water drainage system with slight modifications
- Minimisation of the city functions' disturbance period
- Accessibility of the facilities for maintenance or repair without requiring the destruction and re-construction of the existing sidewalk
- Gradual commissioning
- All products (incorporated materials or constructions) used in the project's construction must comply with the corresponding Harmonised European Standards integrated into the Greek Standardisation System and must also bear CE marking (under the last edition available each time), pursuant to par. 8, 10, 11 and 12 of Circular 26, Prot. No ΔΙΠΑΔ/οικ/356/ 04-10-2012 by the Ministry of Development, Competition, Infrastructure.

TRANSPORTATION & NETWORKS

The construction of the tram's infrastructure and the station's covers is not part of the scope of the agreement to be signed for the project's realisation.

PAVEMENT NETWORK – GENERAL

The existing pavements are replaced by new ones and classified – in terms of their construction – depending on the means of rain-water drainage to:

- surface drainage
- mixed drainage (surface and underground via open joints)

In all pavements servicing stores and services, no materials requiring long curing times before they are covered or loaded, such as on-site cast concrete, shall be used for the construction of sub-bases and final surfaces.

All final surfaces shall be based on Cool barrier technology so as to create thermal comfort conditions thus limiting the urban heat island effect and reducing atmospheric pollution.

The colour of the slabs shall be determined during the elaboration of the colour design within the framework of

the implementation design.

SURFACE DRAINAGE PAVEMENTS

Surface drainage pavements are fixed with mortar and shall be grouted, maintaining the slope to the existing drainage system. Existing concrete sub-bases are used to the maximum extent possible conducting any localized repairs which may arise after the removal of the pavements slabs.

Two types of 5cm-thick slabs are used so as to match the thickness of the removed slabs thus eliminating the need for extra lowering the sub-bases to maintain the existing final level.

- Equilateral triangular pavements slabs with 60cm-long sides
- Prefabricated concrete slabs with mesh reinforcement, 40cm-wide, adjustable length of at least 140cm and with 40cm pitch.


In the construction of the hard surfaces in areas occupied by the road deck and not affecting the operation of the stores, the mesh reinforced concrete sub-base shall be based upon the existing asphalt at a sufficient thickness so that the final surface is at the same level with the surrounding surfaces and the drainage channels towards the outlets.

In areas where no intervention is conducted to the road deck, the existing curbs are preserved with localized replacements where necessary.

MIXED DRAINAGE PAVEMENTS

In the surfaces created in Panepistimiou str. region coplanar transition from hard to soft surfaces is foreseen. Soft surface drainage via infiltration requires a rain-water and irrigation water collection system with perforated pipes laid in a trench backfilled with filter material, leading to the existing rainwater drainage network. The above assumption in conjunction with the general prerequisites described herein as well as with the necessary bearing capacity the pavement must have so as to withstand catering vehicles, ambulances or fire-fighting vehicles, has imposed the solution of the elevated pavement forming gap for the underground drainage of most of the rain-water through open joints leading to the linear drains while also allowing access to the building's incoming services.

As described below the system comprises of the following necessary works:

- Dismantling of curbs and pavements and excavation up to the desired depth
- Fixing of prefabricated casing curb
- Potential modification of building's incoming services
- At least 10cm-thick gravel sub base out of graded 3A material with 1% gradient towards the drains and compaction at 92% of the level measured in the laboratory
- Placement of prefabricated base slabs
- Sealing the slab joints with self-adhesive asphaltic membrane
- Placement – by means of 5mm-thick open joints – of -shaped, 80cm wide prefabricated units out of reinforced concrete, adjusted length of at least 1.30m with 30cm pitch, with EPDM pad on the base to absorb shock and noise as well as minor repairs of the level within the stipulated range of any constructional tolerances
- Placement of special galvanised flashing at the pavement's ending separating the pavement from the soft surfaces while at the same time preventing obstruction by soil material and leading surface water towards the drain
- The prefabricated units' top surface shall have in the middle a 5mm-wide x 10mm deep rebate so that the final surface has a grid every 40 cm. It shall also have a slight gradient of 0.5% towards all edges
- For forming pathways for visually-impaired people the relevant prefabricated units shall have tactile surface texture and patterns in accordance to directive «Design for every one» clause 28-2831/2000

WATER SURFACES

The foreseen water surfaces shall be constructed out of reinforced concrete with 2-compound resin Polyurea sprayed insulation and final lining system (polymers and resins).

SOFT SURFACES

Green and stabilized earthen ground surfaces shall be created on the surfaces now covered by the road deck. The soft surfaces shall be constructed by removing the asphalt, removing the road's gravel base and sub-base

layers and conducting additional excavation so that the final surface reaches the same level as the adjoining pavements.

After subjecting it to suitable treatment (washing, crushing, enhancement) in order to acquire the necessary grading, the base and sub-base material can be used in the construction of the linear drains as well as the stabilized earthen ground's base.

The earth shall be formed with 1.5% slope towards the drains and shall be covered with dimpled drainage membrane with geo-textile. leading run-off towards the linear drain trenches. A 50cm-thick layer of planting soil mixture shall be used in green areas. The 8cm-compacted thick stabilized earthen, shall be laid on bed of gravel graded material separated by geo-textile. The various materials used in the surfaces shall be separated and cased by means of metal blades upon a continuous concrete base.

Prior to the above works, the foreseen trees shall be planted with additional excavation, filled with a mixture of planting soil, supported with underground anchoring system. The irrigation network shall be constructed before the commencement of the above works.

BICYCLE TRACKS

The road's existing deck shall be used as base for the construction of bicycle tracks. The deck shall be coarsened and a mesh reinforced concrete layer shall be placed over it with 1% gradient towards the run-off outlets.

The final surface shall be formed with special decorative polyurethane pavement with coloured quartz or granite aggregates 4mm-thick in total.

The traffic lanes (upstream, downstream) shall be separated by means of marking while the pavement shall be equipped with the appropriate signing as foreseen by the road traffic code.

OMONIOIA SQUARE

According to the proposal, the following is required for the square's configuration:

- Dismantling of all coating up to the insulation layers over the subway station and the existing sidewalks
- Modification of the run-off drainage system with linear drains around the square at the point where the existing sidewalks meet the road pavement
- Demolition of the reinforced concrete constructions
- Laying of root barrier in the area over the subway station

- Construction of a circular water structure out of reinforced concrete as described above
- Laying of drainage membrane with geo-textile on the surface where stabilized earthen ground shall be laid
- Paving sett strips pursuant to the drawing
- Lying triangular slabs on the existing pavements as described above
- Construction of coating with 8cm-thick compressed stabilized earthen ground following the laying of graded filtering material.

During the construction, the road connection of September 3rd str. with Ag. Konstantinou str. shall be preserved. This section shall be laid with cool barrier asphalt, with its colour matching the surrounding surfaces.

DIKAIOSYNIS SQUARE

The square's remodeling provides for the creation of steps and ramps along the two sides of the square. The levels shall be formed with void former with blocks of expanded polystyrene and covered with a layer of mesh reinforced concrete as sub base of triangular paving slabs. The triangular paving slabs shall be laid as described above.

The main area of the square shall be covered with 8cm-thick stabilized earthen ground on gravel graded material separated by geo-textile, keeping the existing slope after the removal of pavement

TREE GRATES

Tree grates at Patision Av. sidewalks shall be industrial galvanised type. It shall be fixed on a metal frame ensuring that it is not removed by non-authorised parties.

URBAN FURNITURE

The urban furniture shall be custom made by local manufacturers.

The benches at Omonia square shall be constructed out of reinforced concrete with anti-graffiti protection.

PLAYGROUND

The equipment shall fulfill the requirements of European Standard EN1176:2008 Playground Equipment and Surfacing (EAOT EN1176:2008) while the construction shall comply with all stipulated specifications regarding the area's inspection and certification by a supervising agency pursuant to article 11 of Greek Ministerial Decision No 28492/2009, Gov. Gaz. B' 931.

CONSTRUCTION STAGES

Towards achieving the proposal's goals, i.e. limiting the obstruction to commercial activities, the project shall be constructed gradually thus excluding the possibility of turning Panepistimiou str. into a working site for the entire duration of the construction until the project's commissioning.

Areas of the existing road deck shall be isolated based on the building blocks and the stores facades and they shall include parts of the run-off drainage network from inlet shaft to inlet shaft.

The area shall be fenced and the following works shall be conducted:

- Dismantling, construction of linear drains via the existing inlet shaft's modification so as to avert flooding during the construction.
- Laying drainage membrane and tree planting with additional excavation.
- Construction of concrete sub-base.
- Laying planting soil and constructing the stabilized earthen ground.
- Removing the fencing thus expanding the field of view and averting claustrophobic phenomena which could have a negative effect on the stores' operation.
- Construction of the pavements according to the above description.

The time-schedule must provide for the construction of autonomous sections to be put to use immediately during the weekend. This assumption which requires over-time affects the cost but restricts the foundation for appeals regarding the potential financial damage sustained by the stores.

Works in Omonoia and Dikeosyni Square, in Trilogy and the areas not affecting commercial activity shall be conducted within working hours, each time isolating individual areas. Since the project is financed through European funding packages, the exclusive deadline for its delivery is set at the end of 2015.

Based on the above time-restriction, this is a first approach at setting a time-schedule:

- Design assignment: April 2013
- Designs elaboration (9 months): January 2014
- Tender and preparation of offers (3 months): April 2014
- Selection of contractor and signing of agreement (2 months): June 2014.
- Excluding 55 days of precipitation when no works can be executed, the remaining 18 months are considered enough to absorb any complications which could manifest due to unforeseeable events, apart from the revelation of significant archaeological findings of course.

The project's delivery time could be one of the criteria for selecting the contractor.

Budget Estimate

Bill of Approximate Quantities

Item	Description	Unit	Quantity	Rate	Total
1	Demolitions	Ps			200,000 €
2	Open joints pavement with T shaped precast concrete module including removal of existing pavement, excavation and disposal of excavated material, compacted gravel bed, concrete sub base slabs	M ²	9,100	200 €	1,820,000 €
3	Concrete paving slabs 400mm x 50mm thick minimum length 1,40 on mortar bed, including removal of existing asphalt wearing coarse or existing pavement, excavation and disposal of excavated material and grouting	M ²	25,500	35 €	892,500 €
4	Equilateral triangular concrete paving slabs 600mm x 50mm thick on mortar bed, including removal of existing asphalt wearing coarse or existing pavement, excavation and disposal of excavated material, and grouting	M ²	22,050	25 €	551,250 €
5	Bicycle road	M ²	5,000	50 €	250,000 €
6	Extra over pavement for cast in situ concrete sub base including mesh reinforcement	M ²	6,000	15 €	90,000 €
7	Extra over for ramps and steps including void former and concrete reinforced with mesh	M ²	1,400	30 €	42,000 €
8	Stabilized earthen ground including removal of existing asphalt wearing coarse excavation and disposal of excavated material and gravel sub base	M ²	12,410	50 €	620,500 €
9	Grass areas	M ²	11,600	20 €	232,000 €
10	Aquatic surface - Omonia square	M ²	1,260	300 €	378,000 €
11	Aquatic surface - Panepistimiou street	M ²	306	250 €	76,500 €
12	Trees including excavation, soil and underground anchoring system	No	266	2,000 €	532,000 €
13	Dimpled drainage membrane with geotextile	M ²	29,000	20 €	580,000 €
14	Root barrier	M ²	5,500	15 €	82,500 €
15	Tree grates	M ²	420	150 €	63,000 €
16	Playground	Ps			150,000 €
17	Steel blade kerb including concrete strip footing	M	6,200	30 €	186,000 €
18	Metal flashing to precast modules	M	1,600	30 €	48,000 €
19	Concrete block stripes	M	1,350	15 €	20,250 €
20	Circular concrete bench (Omonia)	M	120	80 €	9,600 €
21	Urban furniture (Station, Kiosks, Pavilion, seating etc.)	Ps			3,000,000 €
22	Perforated drain pipe in trench including excavation and disposal of excavated material and filter material	M	2,400	25 €	60,000 €
23	Modification of existing rain water drainage	Ps			300,000 €
24	Irrigation	Ps			350,000 €
25	Lighting	Ps			800,000 €
Total direct cost					11,334,100 €
Overheads and Profit 18%					2,040,138 €
Sub Total					13,374,238 €
Contingencies 9%					1,203,681 €
Sub Total					14,577,919 €
VAT 23%					3,352,921 €
Total cost					17,930,841 €
Rounded up Budget's total					18,000,000 €
The quantities have been taken off from the electronic drawings					
The budget rates for composite items and provisional sums have been calculated with the pricing that applicable to public works for budgets higher than two millions.					
The percentages for overheads and profit and for contingencies are these defined by the law for public works					

9.3 ECONOMIC IMPACT AND RETURN ON INVESTMENT

The redesign of Panepistimiou is defined by the Declaration of the competition as an architectural design competition on public space, that aims in the search of typological proposals for the area of the entire ring of intervention, in order to enhance the quality and functionality.

The proposal *Athens as Home* is not limited to an architectural concept that redefines the function of Panepistimiou and incorporates all the above conditions, but mostly solves a series of urban problems. The environmental, commercial, social and aesthetic impact of the intervention directly affects the entire city center.

ENVIRONMENTAL IMPACT

The exclusion of the movement of vehicles has an obvious effect on the reduction of air and noise pollution caused by traffic but will also contribute to regulate the temperature.

The reflectivity of the materials used (cool barrier technology materials, earth, green areas) is double than the existing materials (asphalt, concrete paving) parameter that in conjunction with the proposed tree planting that complement the existing, will contribute directly to the reduction of ambient temperature and will affect the microclimate of the region since will be added to the systems of parks, such as Pedio Areos, the National Garden and hill of Strefi.

ECONOMIC BENEFITS

Panepistimiou directly borders to the hypotenuse of the commercial triangle defined by the streets Stadiou, Athenas and Ermou and the peaks of Omonia, Monastiraki and Syntagma squares. The conversion of Panepistimiou street into a linear square, joins the vertices of the commercial triangle by becoming part of it and also functions as a connecting link with the neighboring areas of Kolonaki, Exarchia, Museum, Metaxourghio, Plaka and Psiri.

The current commerciality factor for Panepistimiou area ranges from 4.5 to 5 while the higher factor in the commercial center is 9. A safe assumption that can be made is that the intervention will increase the commerciality factor of at least 60%

A vehicular traffic free environment enhances the exposure of retail facilities to shopper's circulation. It aids in the attainment of a psychological climate conducive to shopping enjoyment in comparing prices, styles and qualities of goods and therefore stipulates increase in sales.

Pedestrianisation schemes also offer a good setting for cultural performances, recreation activities. When shopping and sightseeing are combined in a traffic free area it becomes a major tourist attraction, as European cases of pedestrianisations have showed.

The development of better living conditions will enhance the choice of the habitation in the city center. The transformation of use of stores into recreational activities



is expected, in order to facilitate the full exploitation of the conversion of the region to a place of destination. Moreover, an extension of operating hours for certain stores is expected. This factor will have an impact in the maximum frequency of visitors in the area.

The new dynamic of the region will make it attractive to investments related to entertainment, recreation, and conversions of office spaces in residences not only along the axis of Panepistimiou but also in the area up to the limit set by Acadimias and in the commercial triangle.

As a result of the above we expect :

- Rental of vacant shops
- Increasing employment

TRANSPORTATION

Blocking the road artery will make unattractive the use of car. This factor will boost the use of tram and public transport in general, resulting in the increase of the passenger numbers and therefore the revenues for the public transport operators.

SOCIAL IMPACT

The aesthetic upgrade of the area in conjunction with the hours' extension for the activities in the region, is believed to discourage violative individuals to choose Omonia and parts of Panepistimiou, as a field of action. The desolation observed in these areas after the end of working hours of shops, creates insecurity, which leads

to downgrade.

The restoration of the sense of security is a prerequisite that must be achieved in order to fulfill the objectives of the intervention

EXPECTED REVENUES

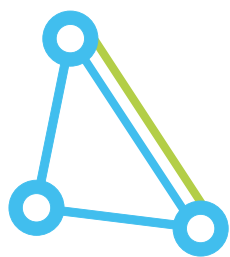
The State and the Municipality expect revenues from:

- Increase of the objective values for properties
- Increase of the municipal tax due to increase of commerciality factor
- Increase of the estate transfer tax due to increase of the objective values for properties
- Income from capital gains (added value)
- Increase of income tax from rentals and increase of the economic activity

INCENTIVES FOR ATTRACTING INVESTMENT

- Granting for use of vacant public buildings along the axis of Panepistimiou
- Operation of new kiosks - refreshment stands
- Permit for installing electronic Information Screens / Panels - Income from advertising





ATHENS
AS
HOME

INTERVENTION STRATEGY

HOLISTIC APPROACH



The choice of the Athens as Home name for the project reveals the intention to change the prevailing attitude towards the public space in Athens. The project represents a new vision of the city that can be realised only through a holistic approach, since the city is a complex mechanism incorporating altogether citizens, institutions, visitors, investors and local community.

The project of the intervention aspires to incorporate good design into a total socioeconomic approach of the development of the Athenian centre. We believe that the intervention goes even beyond the notion of the "project": it is better described as a dynamic "process". It is thus more important to define the joining forces that will be part of this strategy and will be called to collaborate on the intervention than to propose a final site plan.

NEW CIRCULATION PATTERNS

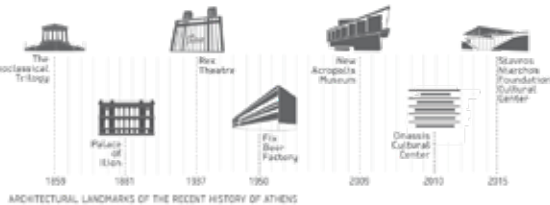


Circulation changes in the area of intervention can only be considered in a broader context of reconfiguration of the transportation scheme, not only for the centre of Athens, but also for the close suburbs of Athens. The optimal scheme of transportation combines more than one typologies. The fast metro network can serve the access to the centre, where the commuter will change for the tram or the bicycle. For this purpose it is urgent to create more parking spaces around the metro stations

that are around the centre of Athens and the suburbs in order to facilitate the access to the centre.

Around Panepistimiou street, a dense network of intertwining pedestrian roads mingles with bicycle lanes, breaking thus the linearity of the existing perception of the street. Rental bicycle parking's are proposed every 200m and smaller bicycle parking in a more frequent rhythm. The tramway, with 24hour function, is expected to be the transportation spine of Panepistimiou.

PLACE AND IDENTITY

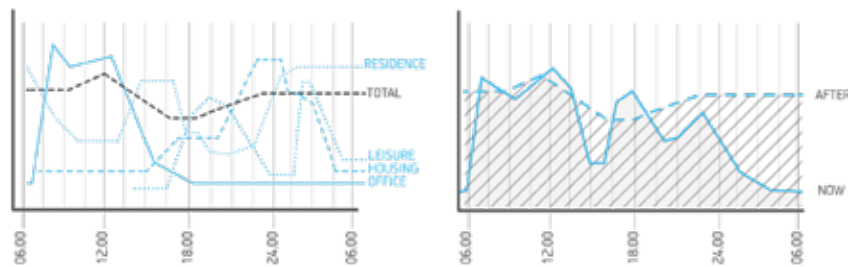


Athens as home project aspires to use existing urban qualities and identities in order to enhance them and capitalise the local community assets, creating consequently a common vision. This vision shall be reflected into every Athenian soul.

The project presents thus an excellent opportunity to reconsider and enhance the contemporary greek multicultural identity. Athens is a city dominated by the hill of Acropolis, in both a physical and a symbolic manner.

Ancient greek and roman antiquities are omnipresent within the city fabric. Nevertheless, a contemporary intervention shall embody the recent history of the city as well, both for the memory of local population and the image of Athens towards its visitors. During the late 19th and the 20th century, and especially since its declaration in 1834 as the capital of the modern greek state, Athens has witnessed major cultural and urban changes changes that are not perceived in an explicit way within the urban fabric.

SOCIAL DENSIFICATION OF PUBLIC SPACE



CIRCULATION OF PEOPLE IN THE INTERVENTION AREA DURING DAY & NIGHT
EMPHASIS ON THE COMPLEMENTARITY OF FREQUENCY FOR THE INTRODUCED USES



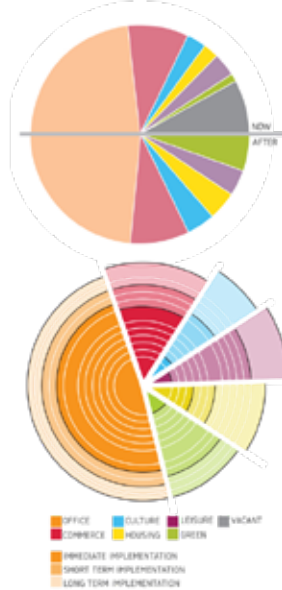
YEAR LONG FREQUENCY OF THE CENTER OF ATHENS THROUGH EVENTS ORGANISATION

The current distribution of uses along the axis of Panepistimiou is characterised by a majority of office and administration spaces, as well as some retail. This contributes into high peaks of frequency on daytime and a very low frequency during evening hours.

The project Athens as home proposes new functions along Panepistimiou Street that will enhance the 24hour use of the public space. New uses introduced in vacant buildings are proposed to be complementary to the dominance of offices, for instance residence or student housing, culture and recreation. Cafes, bars and restaurants ensure the visitors' frequency.

The installation of housing uses shall also guarantee a 24h frequency. More precisely, a social group that is known for its 24hour long activities are the students. Athens doesn't have a big percentage of student housing, even though there are many educational institutions in the centre. This social group can also function as urban watcher through their presence. They can be a safety valve for the maintenance of the urban space quality.

On the other hand, people will frequent more the centre of Athens if more events attract them to visit. Yearlong events are thus proposed, that can have either the different squares, or all the axis of Panepistimiou as venue.



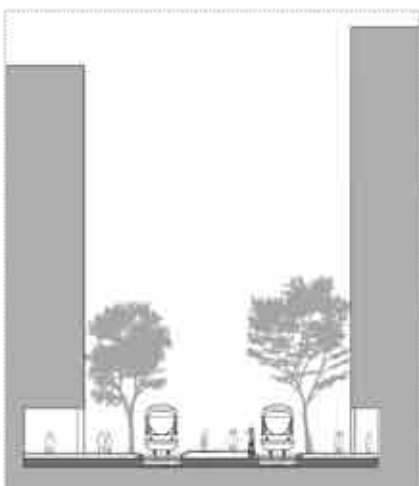
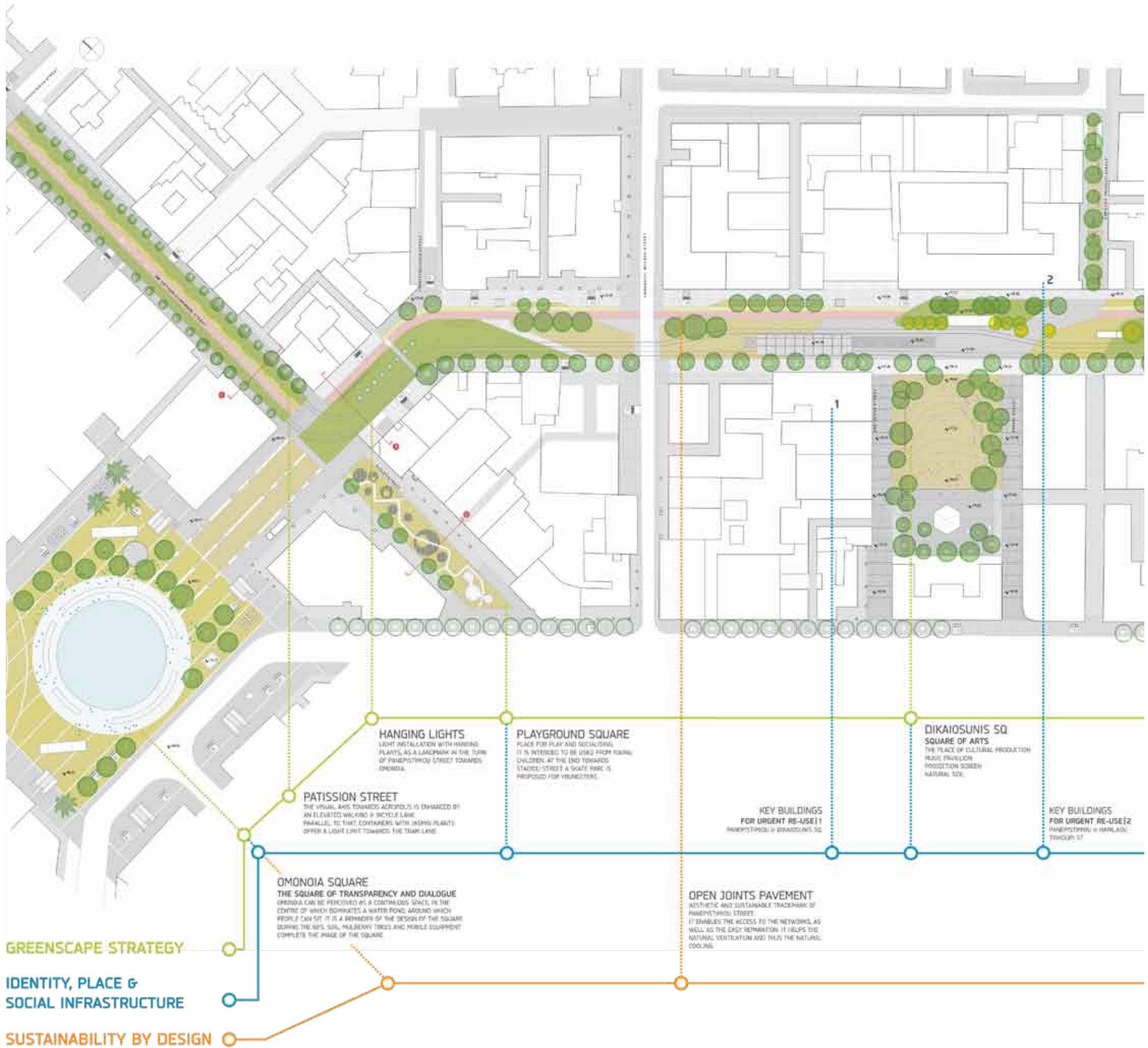
OFFICE CULTURE LEISURE VACANT
COMMERCE HOUSING GREEN
IMMEDIATE IMPLEMENTATION
SHORT TERM IMPLEMENTATION
LONG TERM IMPLEMENTATION



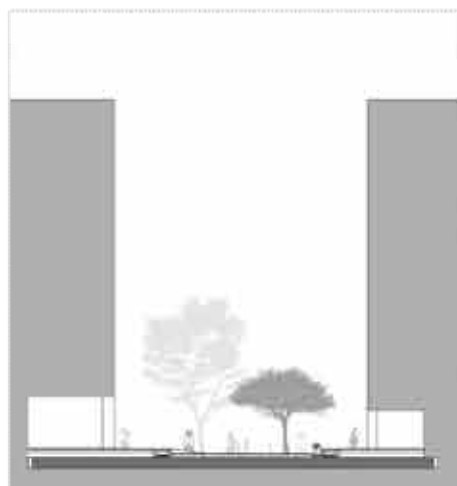
ATHENS AS HOME

WHAT ATHENS NEEDS IS NOT ONLY A WELL DESIGNED URBAN SPACE, BUT ALSO A STRATEGIC VISION FOR ITS DEVELOPMENT, A STRATEGY WHICH WILL INCORPORATE CITIZENS, NEW FUNCTIONS, AN EXTROVERT CITY PROFILE AND 24HOUR USES ALTOGETHER UNDER A SUSTAINABLE PROCESS.

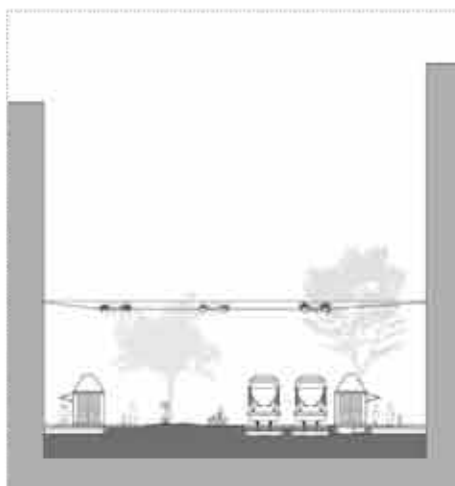




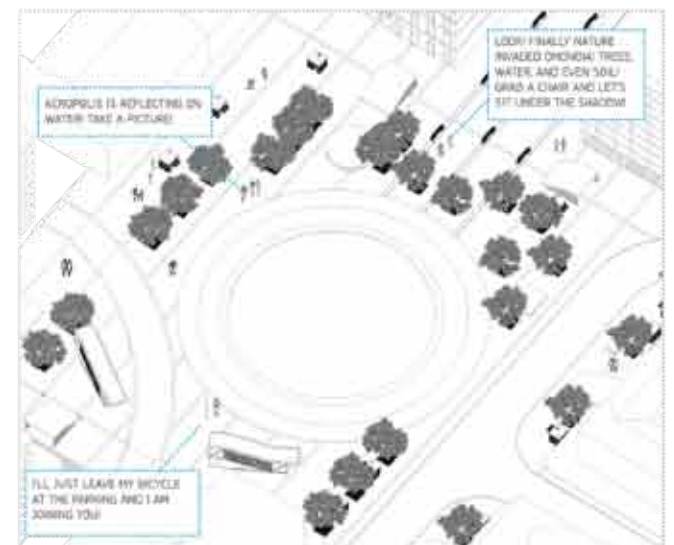
SECTION 1 : PATISSION STREET, ELEVATED PEDESTRIAN AND BICYCLE LANE

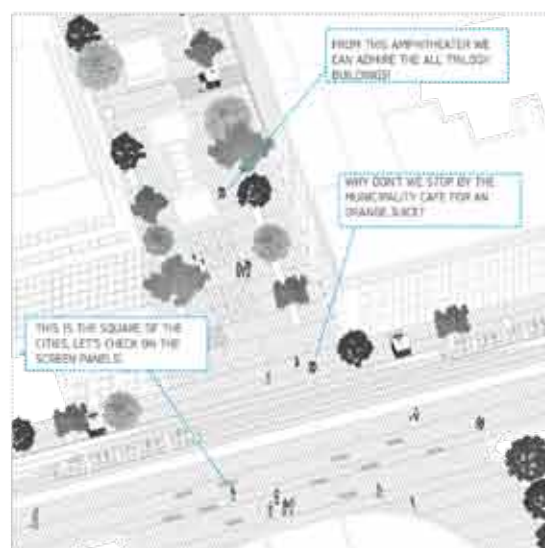
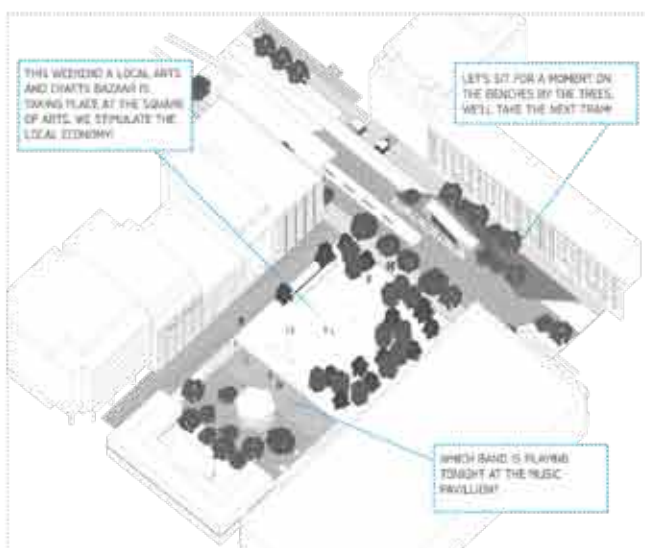
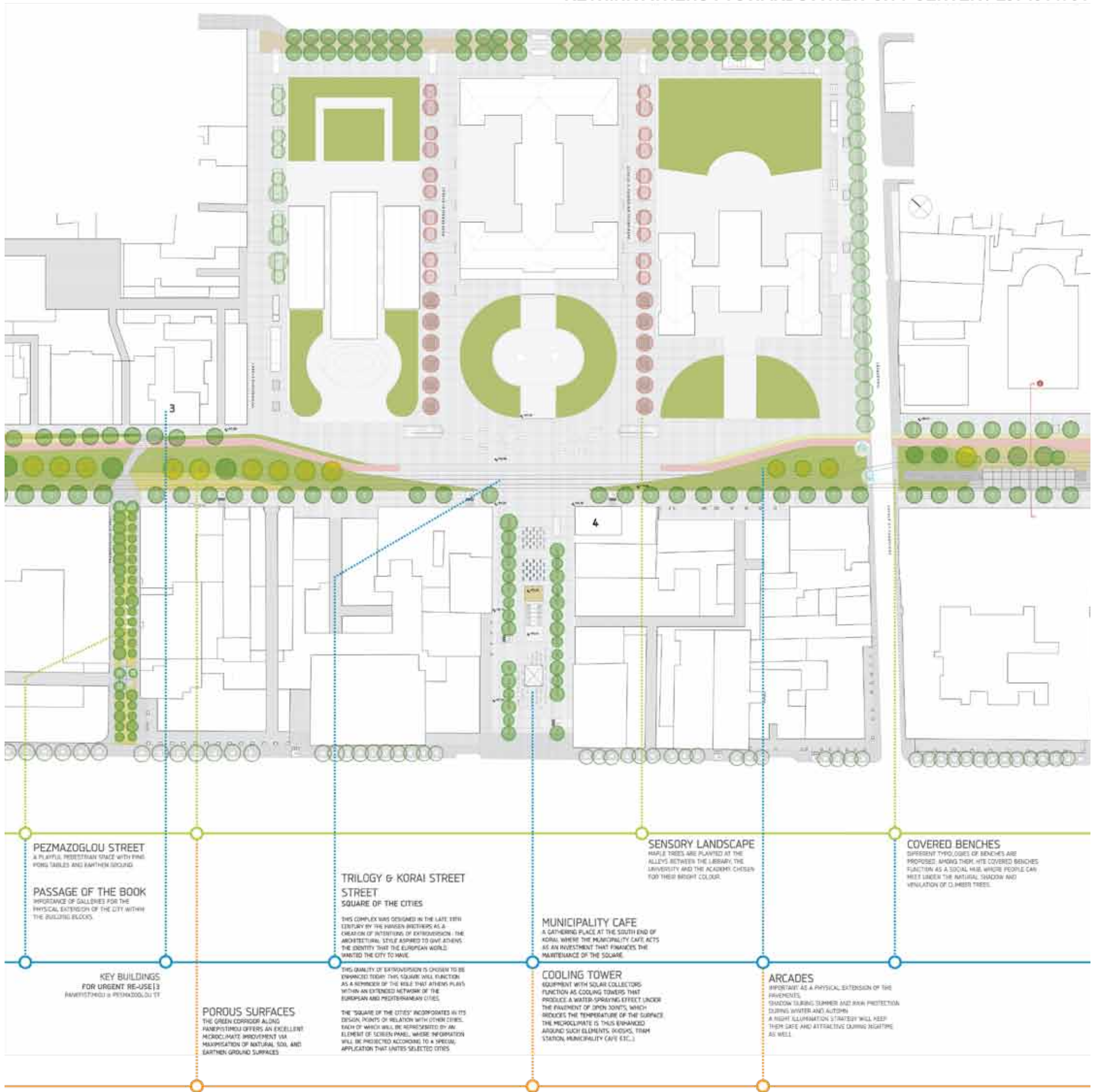


SECTION 2 : AILOU STREET PLAYGROUND AREA



SECTION 3 : PANEPISTHOU STREET TURN, LIGHT AND PLANT INSTALLATION





SECTION 4 : PANEPISTHOU STREET, TRAM STATION

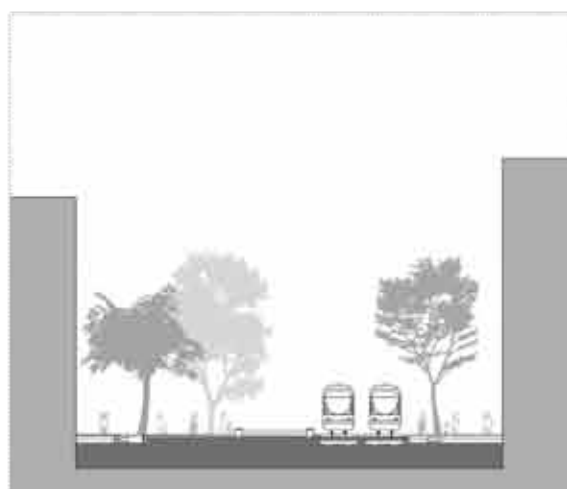
MIMOSA
(SWEET ACACIA)
THE PROPOSED TREES THAT ARE
INTRODUCED ARE ENDEMIC AND
CHARACTERISTIC OF THE ATHERIAN
LANDSCAPE.
FOR INSTANCE, THE TREE OF MIMOSA
ACACIA PARISHIANA IS INTRODUCED
FOR ITS COLOR AND SCENT, AND
ALSO AS A HERBIVOR OF A TYPICAL
ATHERIAN TREE, FAIRBANKS/WAY
ALSO KNOWN AS "THE BULLDOZING"
WITH THE MIMOSA.

WATER POND
AN ELEMENT OF WATER ACTS AS AN EMBLEMATIC SIGN FOR THE ENTRANCE TO PANEPISTIMOU FROM SYNTAGMA SQUARE. THIS ELEMENT ALSO ENHANCES THE MICROCLIMATE COOLING EFFECT DURING SUMMER.

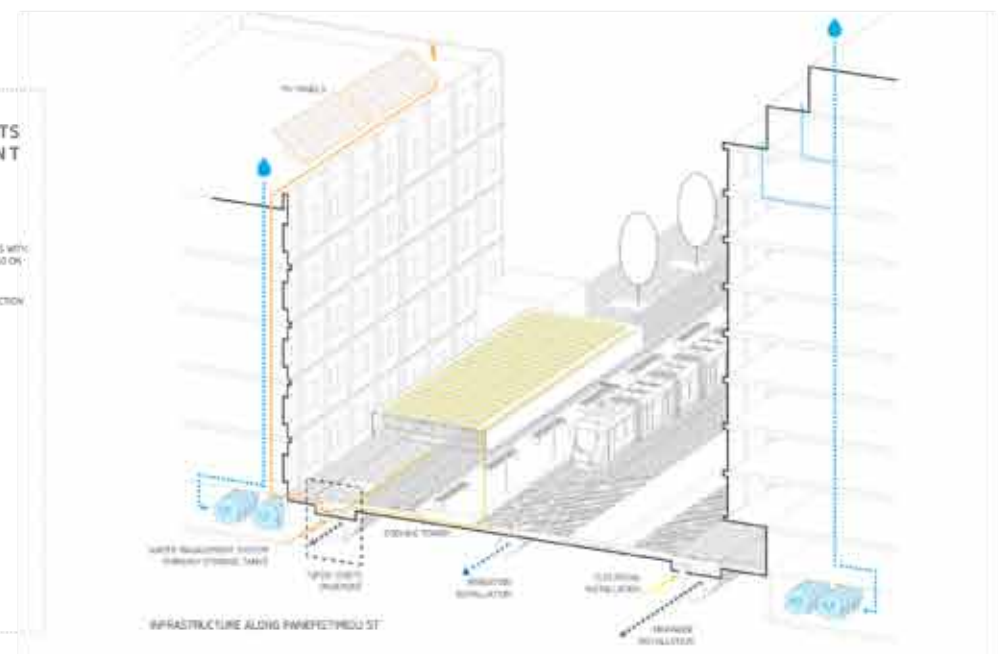
SOCIAL GATHERINGS
CREATION OF SMALL SCALE SPACES
THROUGH COMBINATION OF KIOSK,
TREE, BENCHED
SOCIAL HUB

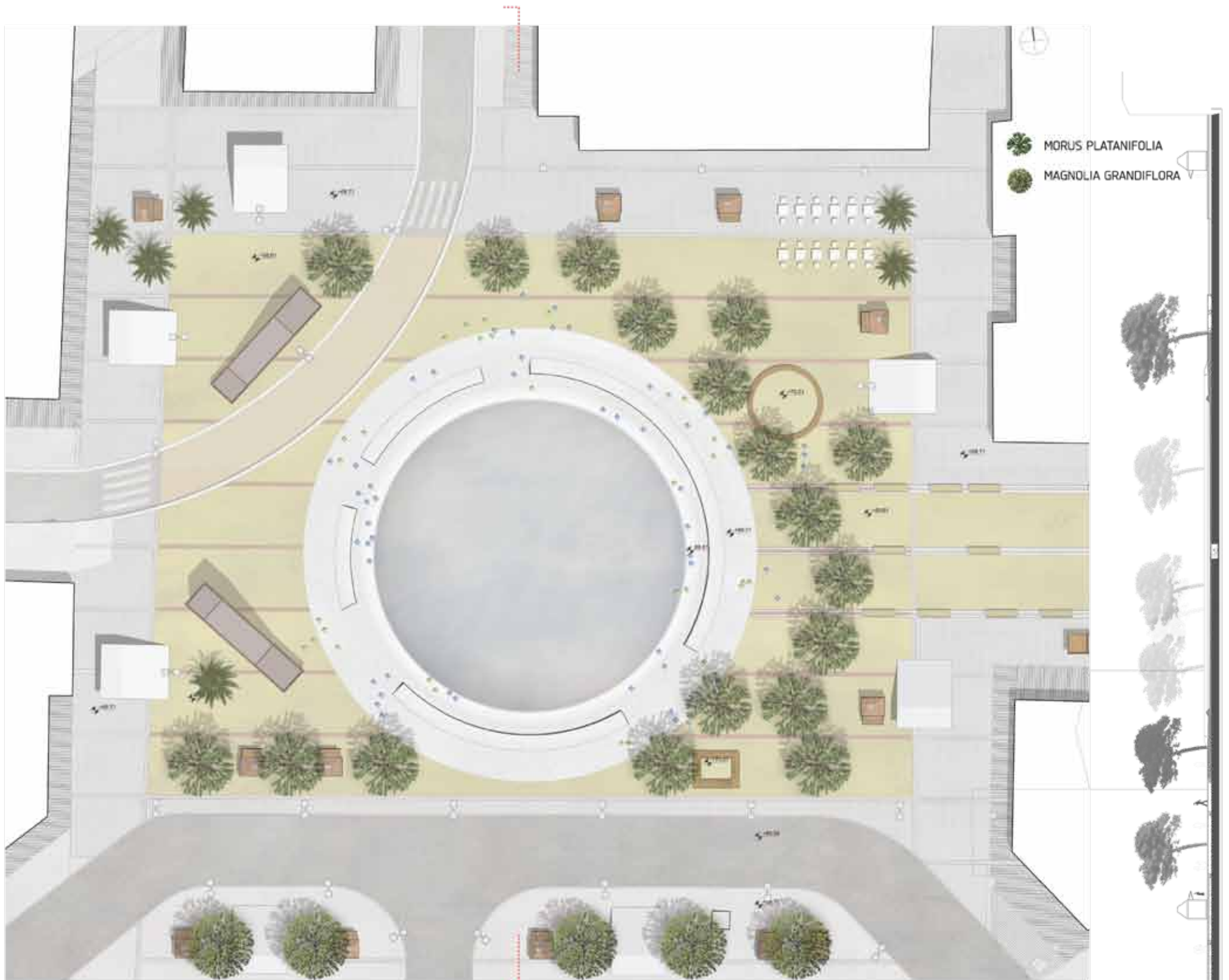
5 SUSTAINABILITY BY DESIGN

- 1:500

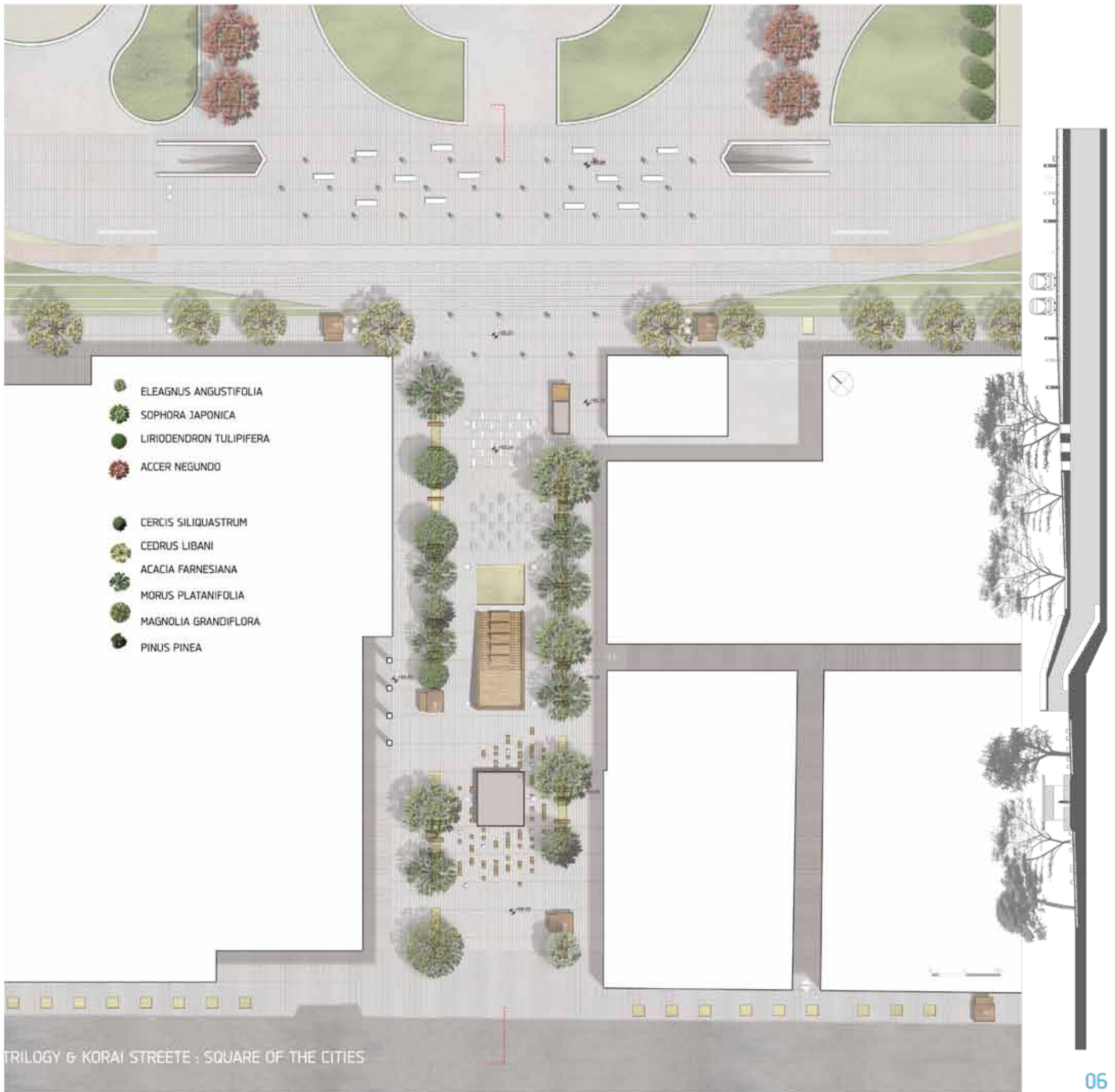


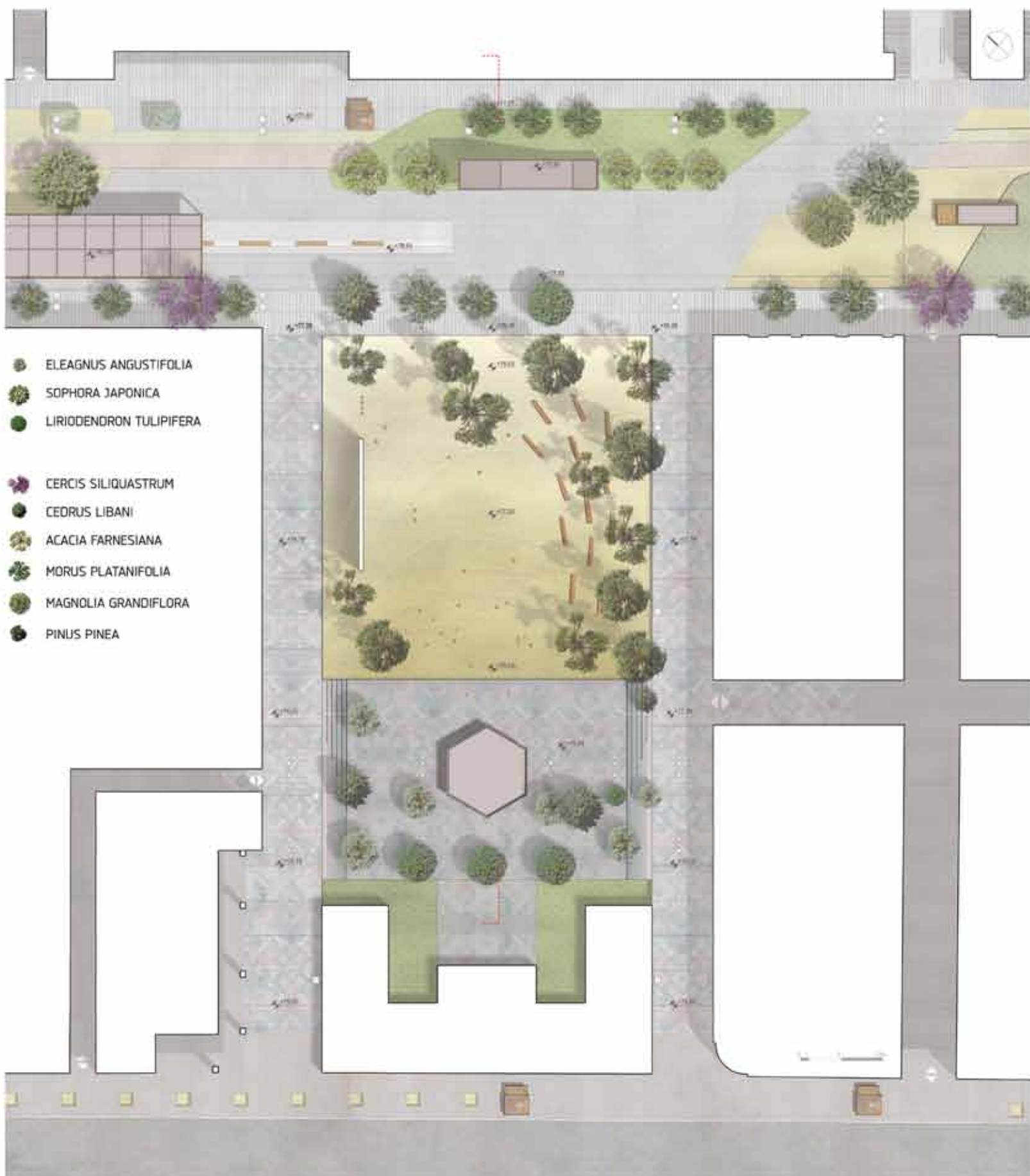
SECTION 5 : PANEPISTIMOU STREET , WATER POND



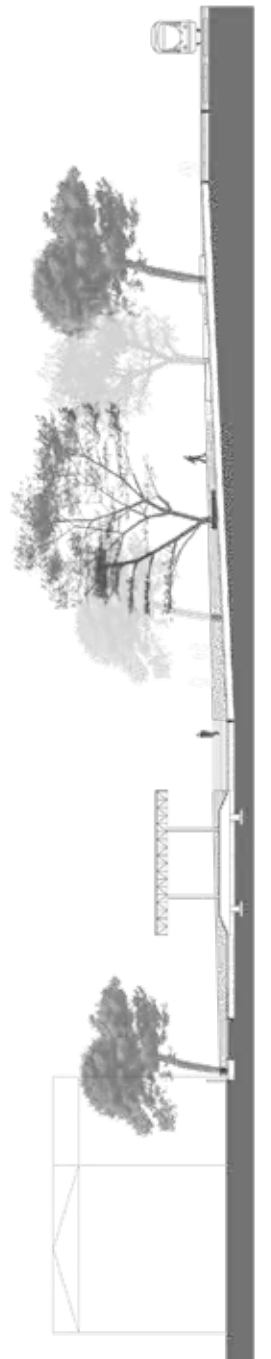


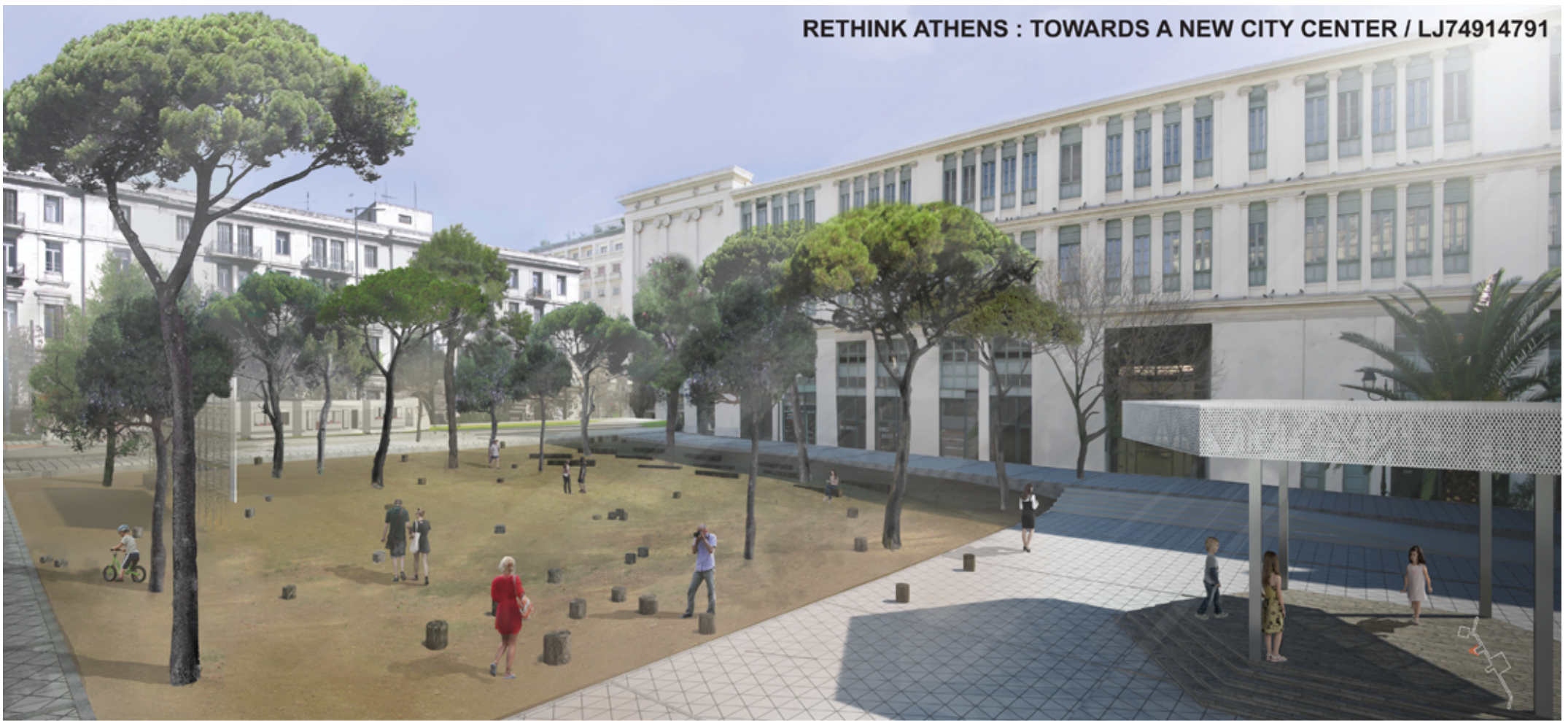
OMONOIA SQUARE : SQUARE OF TRANSPARENCY & DIALOGUE





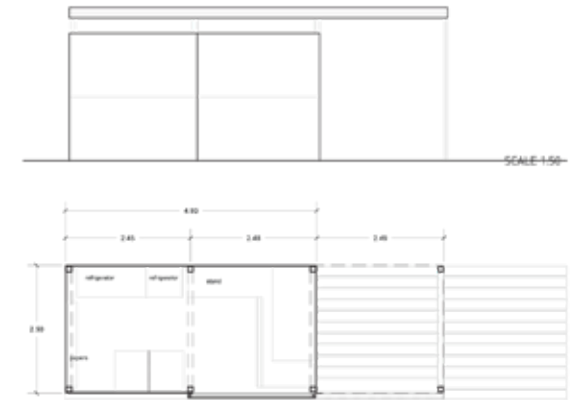
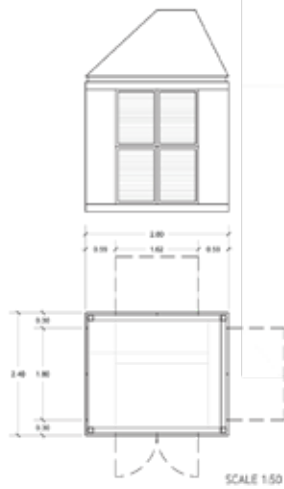
DIKAIOSINIS SQUARE : SQUARE OF THE ARTS





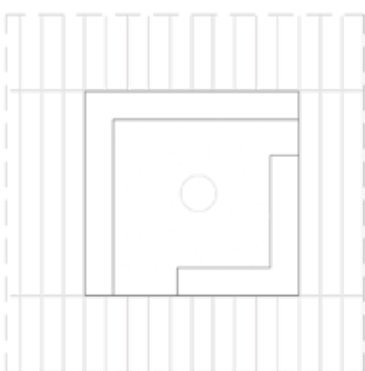
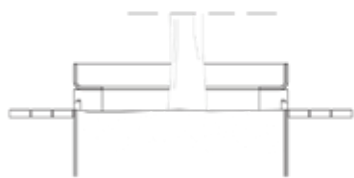
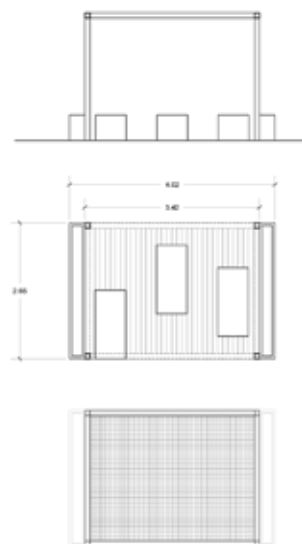
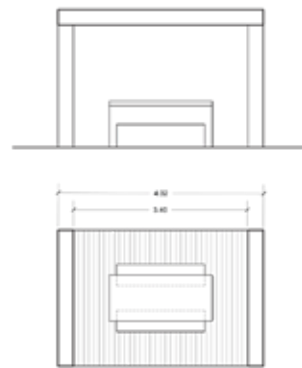
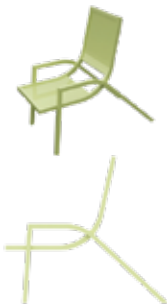
KIOSKS

The typical greek "periptero" (kiosk) is redesigned in an attempt to make it more compact and aesthetically more coherent to the holistic design approach. In some cases, a grouping of two or three kiosks is proposed. In that way, the owners can share the space, but also the different night shifts. In that way, most of the kiosks will succeed in remaining open even during night-time.



SITTING

The places to sit, rest and observe proliferate in the axis of Panepistimiou and all the possible areas of intervention. Along with the typical bench, the proposal explores a series of bench typologies. For instance, covered benches where climber plants are providing the necessary shade, as well as benches that have also a table and a roof. Trees provide also an excellent place for gathering. It is important to add the chair that is specially designed for equipping Omonoia Square and will function as a marking point of the square.



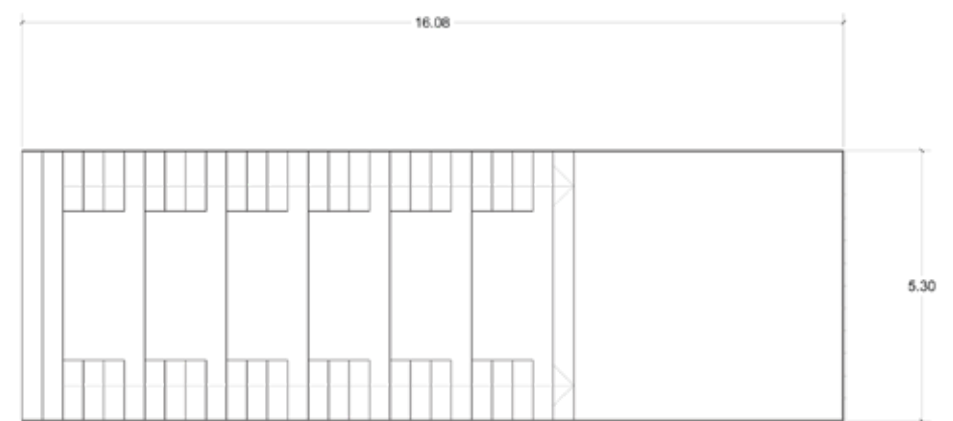
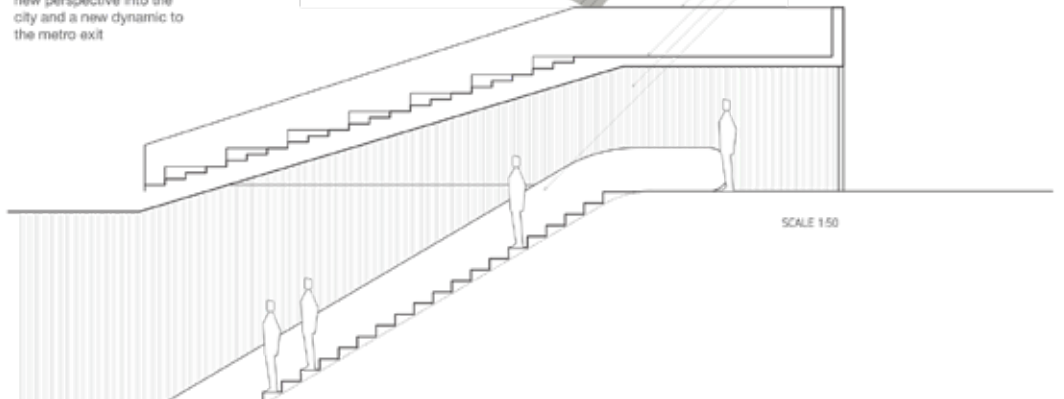
MUNICIPALITY CAFE

Situated at Koral Street, the municipality cafe offers an open air recreation spot, while at the same time it generates profits for the municipality.



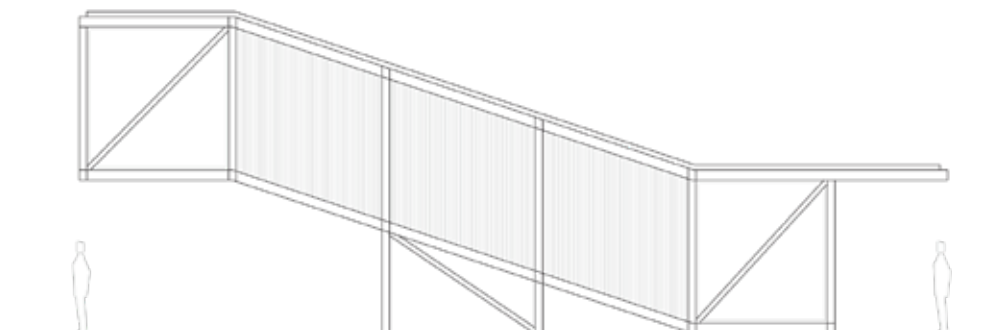
METRO EXIT

Academias and Panepistimio metro station exit: The exit of the metro station is designed as a folded entity that bears a lightweight structure with an amphitheatre. This possibility to access the top of this object, offers a new perspective into the city and a new dynamic to the metro exit.

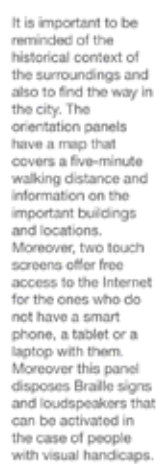




The bus stations of the perpendicular streets to Panepistimiou St are proposed to be redesigned in a way that fits the aesthetic of the project.



APPLICATION / WIFI



The bicycle station is a unit for rental of city bicycles. The design offers the investor of the rental bicycle project a confidence that bicycles are protected from random accidents, since they are elevated. This semi-elevated structure acts also as a local marking point, easy to point out even from a long distance and at the same time works as an element of emblematic design.



The tram station is a light-shaded construction. It is a simple shape with clean geometries, constructed with metal beams and columns.



