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ΕΛΛΗΝΙΚΗ ΠΕΡΙΛΗΨΗ – GREEK SUMMARY

Athens PubliCity: ένας αστικός νευρώνας για ένα νέο κέντρο πόλης

Η πρόταση οργανώνει ένα σύστημα επεξεργασίας του δημόσιου χώρου που αναπτύσσεται και εξαπλώνεται σαν «αστικός νευρώνας», σαν ένας ζωντανός ιστός που στοχεύει στην επανεργοποίηση και αναζωογόνηση του αστικού σώματος. Το σύστημα λειτουργεί ως ένα δυναμικό πεδίο οικείο, κατοικήσιμο, ικανό να "περιέχει" αστικά συμβάντα, συλλογικές αλλά και τις ατομικές συμπεριφορές. Σε αναλογία με τη δομή ενός νευρώνα, το προτεινόμενο σύστημα είναι ενιαίο και συνεχές και παραλαμβάνει τον βασικό γραμμικό άξονα της οδού Πανεπιστημίου, διακλαδώνεται στους κάθετους πεζοδρόμους, διαμορφώνει τις πλατείες, δημιουργεί εσωστρεφή σημεία στάσης αλλά και κομβικές διακλαδώσεις.

Εξάπλωση: Η πρόταση επιχειρεί να αποτελέσει ένα μοντέλο ενιαίας οργάνωσης του δημόσιου χώρου που μπορεί να επεκταθεί και να αναπτυχθεί σαν ζωντανός οργανισμός.

Εναλλαγή: Το σύστημα προσφέρει εναλλαγή στις ποιότητες και τη λειτουργικότητα του δημόσιου χώρου δημιουργώντας ποικίλες ατμόσφαιρες που απευθύνονται σε όλες τις καταστάσεις και ανάγκες των χρηστών: ανοιχτό - κλειστό, εσωστρέφεια - εξωστρέφεια, απομόνωση - συνύπαρξη.

Οικειοποίηση: Το σύστημα επιδιώκει την οικειοποίηση του δημόσιου χώρου μέσα από την ικανότητά του να προσφέρει στοιχεία και ατμόσφαιρες που παραπέμπουν στην οικεία αίσθηση του ιδιωτικού χώρου.

Ο άξονας Αμαλίας – Πανεπιστημίου – Πατησίων αποτελεί τον βασικό κορμό του ενιαίου συστήματος που παραλαμβάνει τις βασικές ροές κυκλοφορίας: πεζή, ποδήλατο, μέσα μαζικής μεταφοράς και τραμ. Στα άκρα του άξονα, οι δύο σημαντικοί πράσινοι πνεύμονες της πόλης, ο Εθνικός Κήπος και το Πεδίο του Άρεως, επιτρέπουν στον γραμμικό άξονα να αποτελέσει έναν πράσινο διάδρομο σύνδεσης και ανάπτυξης ενός ενιαίου αστικού οικοσυστήματος. Τα σημεία στάσης και εξυπηρέτησης των πεζών οργανώνονται ως «αστικά πολύ-εργαλεία», είναι χώροι όπου ο χρήστης μπορεί να εξυπηρετηθεί πολλαπλώς: να αφήσει με ασφάλεια το ποδήλατό του, να δει πληροφορίες σε χάρτες, να ενημερωθεί μέσω ψηφιακών προβολών, να τηλεφωνήσει, να φορτίσει το κινητό του, να έχει πρόσβαση στο διαδίκτυο.

Οι τρεις δημόσιοι χώροι, οι πλατείες Κοραή, Τρίτη και Ομονοίας εντάσσονται στην ενιαία λογική του συστήματος και διαμορφώνονται ως θεματικοί «πυρήνες». Η πλατεία Ομονοίας και ο πεζόδρομος Κοραή αποτελούν κομβικά σημεία όπου το σύστημα μπορεί να διακλαδωθεί και να αναπτυχθεί «καταλαμβάνοντας» και άλλα τμήματα του δημόσιου αστικού χώρου.

Πλατεία Κοραή και Τριλογία / Γνώση: Αποτελώντας μια ενότητα δημόσιου χώρου όπου κυριαρχούν τα κτίρια της Τριλογίας, ο θεματικός αυτός πυρήνας διαμορφώνεται ως χώρος αναφερόμενος στη «γνώση». Στη διαμόρφωση του πεζοδρόμου Κοραή κυριαρχεί η παρουσία μιας κοινόχρηστης βιβλιοθήκης οργανωμένη για το δημόσιο χώρο.

Πλατεία Τρίτη / Αισθήσεις: Η πρόταση οργανώνει θεματικά την πλατεία ως χώρο «αισθήσεων», έναν χώρο που μπορεί να φιλοξενήσει υπαίθριες λειτουργίες που σχετίζονται με τις ανθρώπινες αισθήσεις. Υπαίθριος κινηματογράφος για προβολές, εκδηλώσεις τέχνης και μουσικής, θέατρο δρόμου αλλά και δυνατότητα υπαίθριας άθλησης.

Πλατεία Ομονοίας / Δίκτυα: Στόχος της προτεινόμενης διαμόρφωσης είναι να επαναφέρει την ισχυρά συμβολική εικόνα του κύκλου οργανώνοντας έναν ζωντανό κεντρικό πυρήνα με πολλές κινήσεις, ροές, διελεύσεις αλλά και στάσεις. Προτείνεται η διαμόρφωση μια κυκλικής κατασκευής – ενός λειτουργικού δακτυλίου και η μεταφορά τριών εισόδων / εξόδων του Μετρό στο κέντρο της πλατείας.

Το συνολικό σύστημα του «αστικού νευρώνα» θα πρέπει να αντιμετωπιστεί ως ένας ζωντανός οργανισμός που μεγαλώνει και επεκτείνεται μέσα στο σώμα της πόλης, δίνοντας τον απαραίτητο χρόνο αλλά και τις κατάλληλες στρατηγικές ώστε οι πολίτες να το οικειοποιηθούν, να το κατοικήσουν και τελικά να το συνδιαμορφώσουν.

ENGLISH SUMMARY

Athens PubliCity: an urban neuron for a new city center

The proposal organises a public space processing system which develops and expands like an “urban neuron”, an entire living framework aiming to re-activate and revitalize the urban body. The system acts as a familiar, habitable and dynamic framework able to “contain” events and situations of both collective and individual actions. In proportion to the structure of a neuron, the proposed system is both complete and continuous. It takes over the basic linear axis of Panepistimiou Street and crosses over the vertical pedestrianised streets, reshaping the squares, creating intimate points of rest, urban services and key intersections.

Expansion: The proposal aims to intervene beyond the defined urban space. It rather proposes a uniform organisational framework of the public space that can expand and “grow” like a living organism.

Alteration: The system aims to provide qualitative and functional alteration of the public space creating a variety of environments and alternative perspectives that appeal to user’s various states and needs: open-close, introversion - extroversion, solitude - conviviality.

Familiarity: The system reclaims the familiarity of the public space through its ability degree to provide the user with the sense of warmth and intimacy found in a private space.

The Amalias - Panepistimiou - Patision axis is the fundamental backbone including all the basic movements; pedestrians, bicycles, tram and busses. Two important green spaces, the National Garden and Pedio Areos, are found at each end of this axis. This allows it to become a green corridor of connection and development of a unified urban ecosystem. Standing and service points are organised like “urban multi-tools”, gathering a variety of functions: get coffee or quick food, bicycle parking, explore maps or get informed from digital projections and access the web, use the public phone or recharge their own.

The three open spaces (Korai, Antonis Tritsis and Omonia) are included in the unified logic of the system and are formed like thematic “nuclei”. Omonia square and Korai pedestrian way are major focal points - “dendrites” where the “urban neuron” system can split and develop like a living organism “taking over” more areas of the urban public space.

Korai Pedestrian Street and Trilogy / Knowledge: Being part of a section dominated by the Trilogy buildings, this thematic nucleus is configured as a space dedicated to “knowledge”. In the proposed arrangement prevails the communal library organised in such way as to operate in public space.

Antonis Tritsis Square / Sensations: The proposal suggests the theme of “sensations” for the square; an area where outdoor events and activities related to the human senses are accommodated: open-air cinema screenings, public art events, live performances, music events and even an outdoor gym.

Omonia Square / Networks: The proposed configuration aims to restore the powerfully symbolic circular shape and to organise an alive public space where “action” takes place: moving, crossing as well as standing. In order to achieve this, we propose the construction of an urban hoop as a circular structure together with the relocation of three Metro entrances/exits in the middle of the square.

The “urban neuron” system should be treated as a living organism that grows and expands within the body of the city; giving necessary time for people to live in, take ownership and ultimately shape it.

REPORT**1. General concept****1.1. Introduction: Rethink Athens**

Major cities are complex spatial formations reflecting both social and economic conditions of each period in time. The situation that is now experienced in the centre of Athens demonstrates the economic, political and social crisis in Greece as well as its wider scope.

A few years ago the major issues dealt in the Athenian urban centre were the ones commonly faced by many other European cities; high urban density, traffic congestion, environmental pollution, lack of green spaces. During the year 2004 however, the urban regeneration seemed to overturn the static urban backdrop. Both Athenians and visitors “discovered” a city where they were able to travel comfortably using the new and impressive Metro system, wandered around integrated public spaces that bore the historical presence of an “eternal city” and had access to the alternative means of leisure of a bustling multicultural metropolis.

The economic downturn together with the escalating of the crisis in recent years, have managed to overthrow this fragile urban renaissance and have led today to the absolute breaking of the

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urban regeneration

city's social fabric. Public space in the centre of Athens is now a permanent field of conflict and violence heading to abandonment and decadence. Businesses and entrepreneurship abandon city centre at an alarming rate driven away by the economic recession and spatial devaluation. The sight of the unfamiliar city illustrated in the Athenian centre creates a highly charged as well as a perilously complicated problem, one of the most intense to ever appear in a European city.

Architecture, urban design and any kind of design framework are unable to provide solutions to spatial problems deriving from deeply rooted non-spatial issues. They can however, serve as a primary catalyst creating the "ripple effect", generating a series of inter-connected operations that could reverse the overall picture of decline. To the extent that both cities and urban areas form complex systems similar to natural ecosystems, where structural dynamics are consequences of interaction between parts and whole, if a catalyst change occurs in one part of the system it can trigger changes to its whole.

Therefore the kind of design aimed at regaining an attractive function and image of the urban framework will trigger the return of people in the city centre to reclaim the public space as users with "multiple identities", using it as a meeting point rather than that of conflict. This recovery and ownership of public space will bring about a secure environment and will reset the presence of businesses together with the return of city centre living. The suitable promotion of this new urban condition could also help to re-enforce and further develop entrepreneurship in a "promising" urban environment.

1.2 A system as an "urban neuron"

The proposal organises a public space processing system which develops and expands like an "urban neuron", an entire living framework aiming to re-activate and revitalize the urban body. The system acts as a familiar, habitable and dynamic framework able to "contain" events and situations of both collective and individual actions.

Just like the neural coding which is concerned with how sensory and other information is represented in the brain by neurons, the main goal of the proposed urban neuron is to regenerate the urban code causing the city's "transdifferentiation".^[1]

In proportion to the structure of a neuron, the proposed system is both complete and continuous. It takes over the basic linear axis of Panepistimiou Street and crosses over the vertical pedestrianised streets, reshaping the squares, creating intimate points of rest, urban services and key intersections.

Expansion: The proposal aims to intervene beyond the defined

urban space. It rather proposes a uniform organisational framework of the public space that can expand and “grow” like a living organism. The concept of “development” includes the possibility where the suggested system “occupies” the various public landscapes, the horizontal and vertical urban surfaces while renegotiating its boundaries.

Alteration: The system aims to provide qualitative and functional alteration of the public space creating a variety of environments and alternative perspectives that appeal to user’s various states and needs: open-close, introversion - extroversion, solitude - conviviality.

Familiarity: The sense of familiarity deriving from a public space depends on the degree to which it is able to provide the user with the sense of warmth and intimacy found in a private space. This is achieved through the user’s ability to choose, if desirable, to partly find solitude, to seek the illusion of a canopy created by trees and feel safe in the environment of an “urban living room”. The opportunity of citizen participation in the shaping and development of the daily life of a place enhances the appropriation of a “new environment”.



2. Detailed description of the proposal

2.1 Linear axis

The fundamental backbone of the proposal is the Amalias - Panepistimiou - Patision axis. It forms the central spine of a uniform and continuous system that is able to split and expand like a living organism. Two of the most important large green spaces of Athens - the National Garden and Pedio tou Areos - are found at each end of this axis. This allows for the proposed linear green axis to become a green corridor of connection and development of a

unified urban ecosystem. The Amalias - Panepistimiou - Patision axis is a linear system of movement, standing, green zones, seating arrangements and individual uses. Its three sub-regions have been organised according to the geometric street arrangement, traffic circulation and surrounding uses.

The Amalias Avenue axis forms the first linear sub-region. A key element of this configuration is the development of the National Garden boundary to engage with the new situation.

Traffic routes include tram and bicycle lanes. The tram moves over a green zone of low vegetation with selected wild plants from the Greek countryside. The green tram lane includes plant units with various densities - groups of high and low density vegetation to avoid a monotonous undeviating result. Furthermore the green belt creates a clearly defined boundary discouraging pedestrians from walking across the tram lane. Along the two sides of Panepistimiou Street there is an empty lane of five meters where taxis and cars for the facilitation of services (ambulances, garbage trucks e.t.c.) are allowed to use.



Standing and service points are organised like “cells” between the routes. Surrounded by greenery, they include seating, and small multi-purpose kiosks (cafes, fast food, news-stands, etc.). Pedestrians have access to their roofs where views of the axes can be enjoyed. These extended structures are organised in such manner so to become “urban multi-tools” of city uses and services. The part directly in front of the Parliament is treated as a single floor where urban elements are purposely absent apart from the presence of water that further enhances the importance and character of this landmark building.

Panepistimiou Street is the dominant part of the linear axis extending over the greatest length and attracting the largest number of users. It thus weakens the significance of independent open spaces, such as the Antonis Tritsis (Justice) square, the open spaces complex of the Trilogy and the pedestrianised part of Korai Street. This therefore provides the centre of gravity of the overall

intervention.

The gentle mobility routes along Panepistimiou Street include tram and bicycle lanes. Various bicycle free renting points are located nearby. The tram lane is proposed to move on the east side of the axis as it enjoys a greater amount of sunlight throughout the day. This leaves more shaded area for pedestrians. Along Panepistimiou Street the cell framework continues; standing points including soft functions (cafes, small shops etc.).

Patision Street is dedicated to public transport (trams and buses). Natural features include the green covered tram lane, street trees along the pedestrian sidewalk together with a green space including bus stops and seating. In this way the green corridors facilitate the continuity and integration with the Pedio tou Areos into a continuous ecosystem.

The vegetation planning proposes planting species that are familiar to the Athenian landscape. The geometry of the composition begins with low greenery, continues with medium and finishes with tall and dense plants with trees. This treatment ensures various intermediate vegetation layers and shading that can be used for different purposes while they create a complex web of green flooring and canopies projecting into the public space.

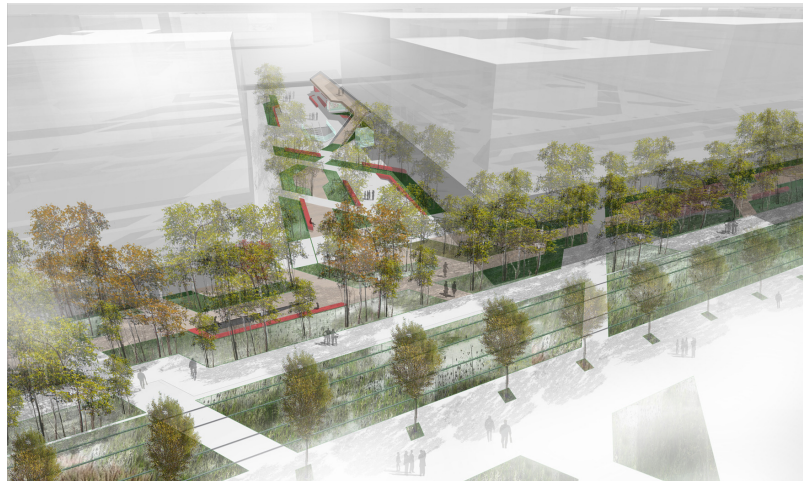
Thematic nuclei and dendrites: The three large-scale open spaces (Korai, Antonis Tritsis and Omonia) are included in the unified logic of the system and are formed like thematic “nuclei” where users are encouraged to spend some time. Furthermore Omonia square and Korai pedestrian way are major focal points / “dendrites” where the “urban neuron” system can split and develop like a living organism while “taking over” more areas of the public urban space.

Korai Pedestrian Street and Trilogy: Knowledge

Being part of a section dominated by the Trilogy buildings, this thematic nucleus is configured as a space dedicated to “knowledge”. In the proposed arrangement of the pedestrianised Korai Street prevails a communal library organised in such way as to operate in public space. The library contains books that are offered by the public on a bring one - get one basis (unlike a lending library it works on a personal level with people offering a book in order to get another one) and operates under a citizens’ collective management system.

The common use library is structured in accordance with the “urban multi-tools” and fits within the overall proposed geometry and construction. Its transparency allows for external viewing of the books while users have access inside, to the ground floor pergola and the rooftop where they are invited to sit, move and enjoy

views from an elevated level. It also stands as an interesting feature for pedestrians coming into Korai Pedestrian Street when exiting the Metro station by the steps located in the square centre. Users will be able to borrow books from the library, use them during their stay in the area and then return them back. Safety and secure closing down during non-operational hours has been taken into account in the design.



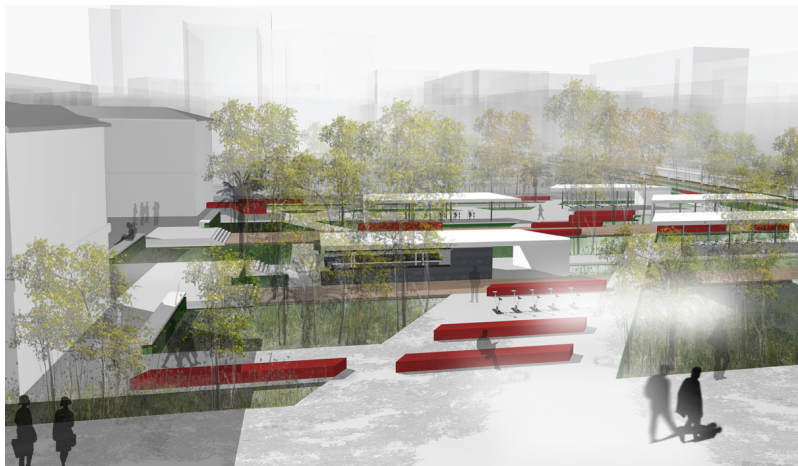
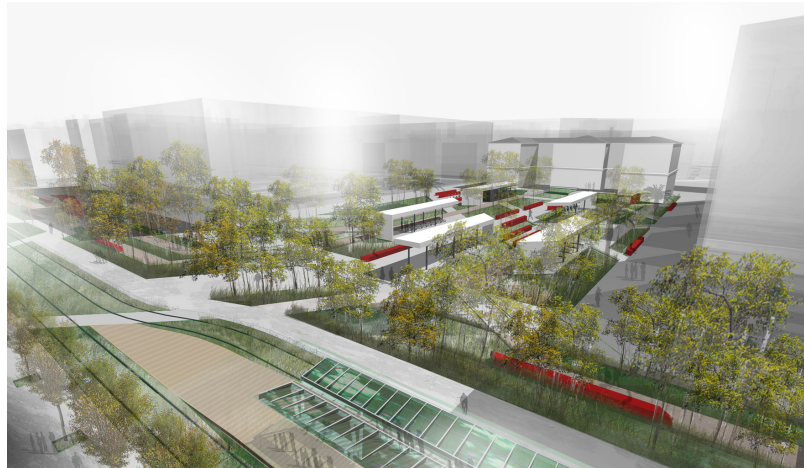
The space surrounding the Trilogy buildings is configured in such way as to form a continuation to the overall proposal within the constraints set by the institutional and protection level of their listed status. Thought-through landscaping that engages with the existing official boundaries introduces a new condition of compatibility; one that attempts to coexist with the monumental building complex. The new landscaping proposal remains outside the protected zone of the premises. However, provision has been made for enhancing the existing trees and plants of the Trilogy gardens.

Antonis Tritsis Square: Sensations

Due to the fact that Antonis Tritsis (Justice) Square is obstructed in three sides, it is the most introvert out of all three open spaces - thematic cores. Surrounded by three streets, Arsaki, Panepistimiou and Santaroza, the square currently presents a state of desolateness. The abandoned listed building of the former National Printing premises further diminishes the sense of isolation and bleakness.



The proposal suggests the theme of “sensations” for the Square; an area where outdoor events and activities related to the human senses are accommodated: open-air cinema screenings, public art events, live performances, music events and even an outdoor gym. The proposed landscape design penetrates the square and incorporates it with the rest of the composition. Following the natural slopes, the square re-connects with its main feature, the rear side of the old National Printing building with newly introduced means of direct access.



A second, localised landscaping arrangement creates multiple routes within the square. Outdoor fitness equipment are scattered around underneath the pergolas. The outdoor gym could become a space of meeting and socialising for people of all age groups and especially for those working in the surrounding offices and choose to work out at lunch break. Generally when sports facilities are provided in public parks they promote socialising, reinforcing the sense of community and urban neighborhood. However this is a central urban area and not a residential district but despite this, there are many office buildings and the development of a core of collective activities will encourage ownership and “habitation” of the public space.

Omonia Square: Networks

Omonia Square is one of the most characteristic landmark squares in Athens. This notion has mostly entered the collective consciousness of the rest of Greece rather than that of Athens itself, since Omonia has become a symbol of internal immigration and urbanization. For the past hundred years, the history of Omonia Square can be summarised in the dramatic struggle between the bourgeois Athens of Syntagma Square and the working classes south and southwest.^[2] Throughout its history, Omonia Square has been the subject of multiple changes and mutations to its urban planning. Every alteration in traffic and circulation for both pedestrians and vehicles had each time a direct effect on its symbolic character.

Regardless of any alteration, Omonia Square has always maintained an open and central character that eliminated any sense of social segregation and spatial possession; the square “belongs” to the countless passersby who access it every day and at the same time is owned by no-one. This square -“urban navel”^[3] consists an ever-changing and volatile place, a land in constant rotation.

Omonia Square is like a natural «threshing floor» seems that never deliberately designed but has somehow appeared in the city. It is the point where the city’s main traffic arteries converge, a pole attracting vital energy from residents and visitors. *“Its indubitable power of attraction is possibly caused primarily by its central location and the vast amount of people constantly on the move. To all these people Omonia feels like being on the margins and overall this is the case. If it were to suddenly become commonplace and mundane [...] it would lose not just something of its rhythm but also its mystic life”*.^[4]

At the end of the 19th century the square included a clump of trees, made of oaks, cypresses and pine trees, together with pavilions for small vendors (mainly florists) and a raised central gazebo for music bands.

From 1925 to 1930 it is excavated to make space for the Electric Subway, the new railway line station. Its new face is no longer green, however it is still a square used heavily by pedestrians who are descended via the stairs, to the station below. The new urban character is shaped with the use of marble on the railings, the pavilions and the station entrances. Pedestrian traffic flow is directed from the centre of the square towards the edges and the surrounding streets. The underground station air ducts are hidden behind the landmark podiums featuring statues of eight Muses.

The ‘50s mark the rising of car dominance and Omonia follows this new area by turning into a roundabout; the new “square” becomes a symbol of the uninhabited, a place only to be viewed, preferably from the top. Pedestrian traffic flow and access to the station is relocated from the centre to the edges while at under-

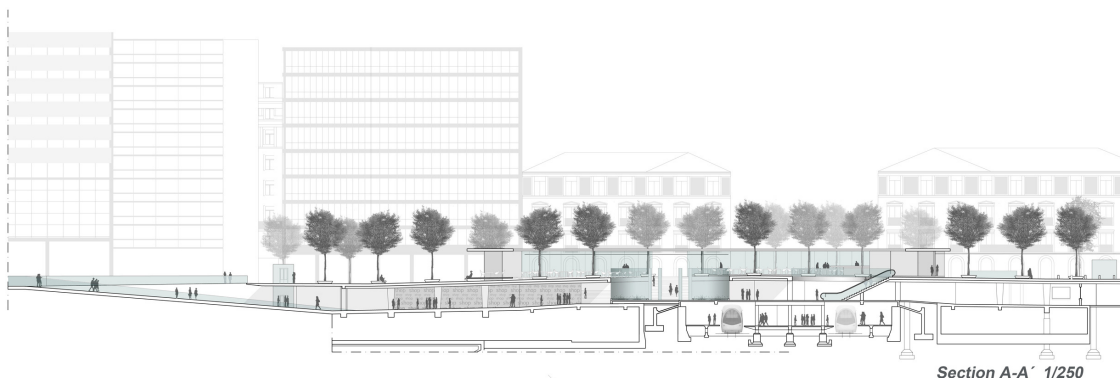
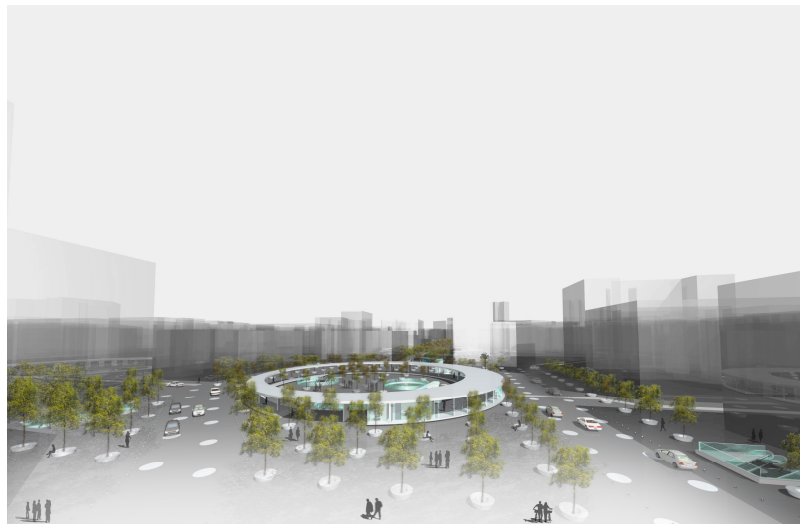


ground level a second square is constructed.

The current reconstruction of Omonia Square intended to restore the balance between pedestrian and vehicle traffic flow by rearranging the vehicular circulation. The inaccessible roundabout where six roads are coming to, became accessible space while defying the geometry of the circle - hub, the one which had marked the city's collective memory.

The current spatial layout places the entrances/exits to the Metro Station on the edges of the square, just like they were in the 50's. On their way in or out of the stations, Metro users are led on the borders of the square without being given any incentive to the contrary. This way, the square fails to prompt the vibrant atmosphere one would expect in such central location. Left on its own, Omonia ends up attracting all those volatile elements and situations that reflect a new urban aspect of decay and decline.

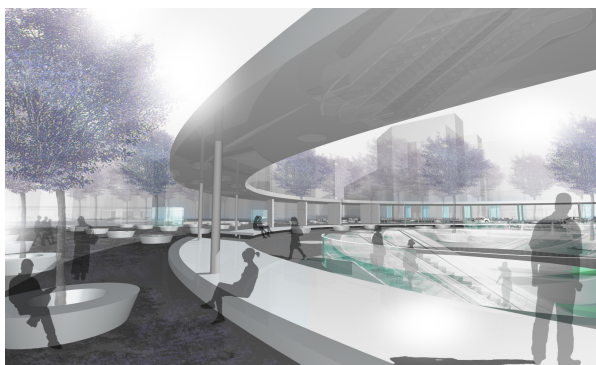
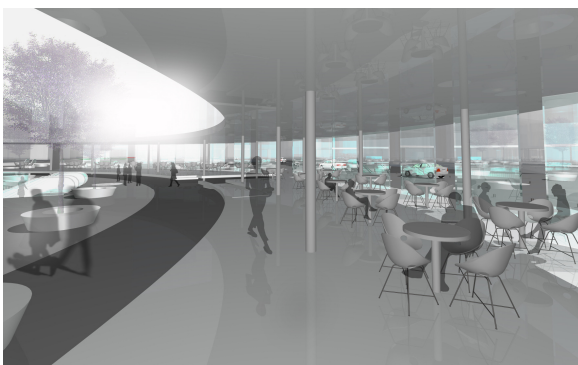
We believe that the prime issue for upgrading the current state of the square, is to turn it into a living, vibrant core where people choose to walk by or stay in. The proposed configuration aims to restore the powerfully symbolic circular shape and to organise an alive public space where "action" takes place: moving, crossing as well as standing. In order to achieve this, we propose the construction of an urban hoop - a circular structure together with the relocation of three Metro entrances/exits in the middle of the square.



The urban hoop: The area defined by the surrounding urban blocks becomes a single-level ground onto which both pedestrian and vehicle traffic takes place. In the centre of this square shape, a new round “second” plaza is inscribed; a circular structure housing cafes, small stores and kiosks. This creates an “urban hoop”, an open space under a canopy that shelters the above uses all year round. In the proposal, all existing kiosks are removed from their current locations and are integrated into the “urban multi-tools”. This condition, on one hand, aims at relieving the load of disparate elements within the Greek urban space. On the other hand, and in particular at Omonia with the existing kiosks turning their backs on the core square, it aims at removing some of the numerous obstructions that worsen the pedestrian traffic on the already undermined edges that leave the core square uninhabited.

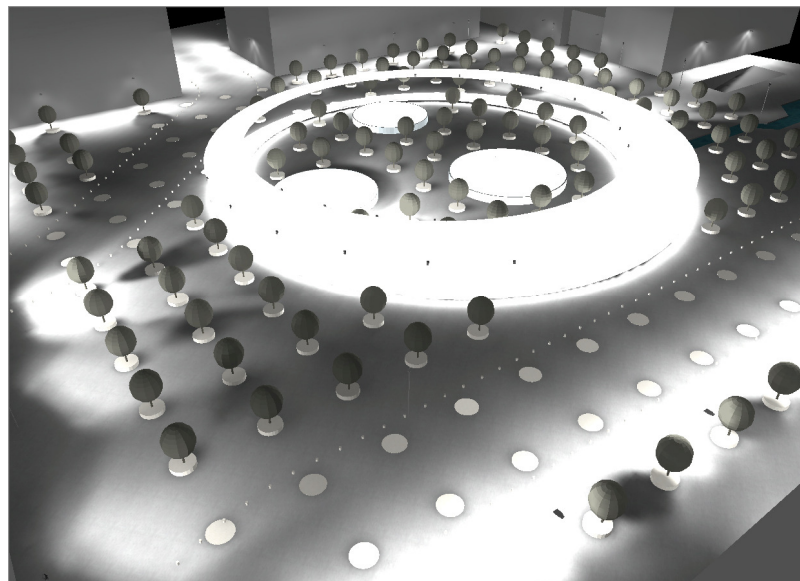
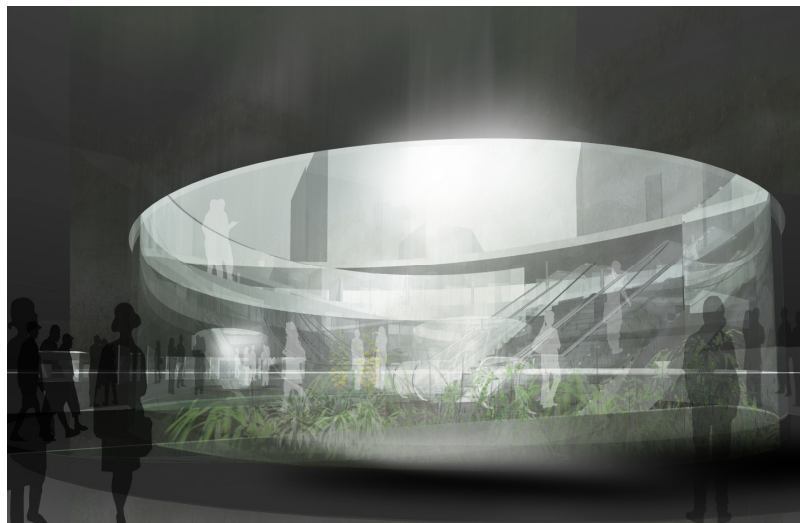
The urban hoop includes three Metro station entrances/exits that emerge in the square out of circular openings. The three access points are formed so that they take maximum advantage of their relation to the outdoors: natural light, view towards the sky, square life. They formulate high quality spaces that fit into the new design guidelines. At lower level there are designated planted areas in order to ease the feeling of an enclosed basement. The purpose of this layout is to give the Metro user the predisposition of ascending into a significant outdoor space. Pedestrians now walk across the square on their way to and from its central hub. This way, the square becomes an inhabited and alive space with constant pedestrian traffic in addition to the use of the cafes and kiosks. This change of character will naturally discourage any violative uses. The remaining two Metro entrances/exits are still placed on the borders of the square.

The single surface of the ground level unifies the square and dictates low speed for vehicle traffic. Besides the inner circle, the remaining area is formed by trees arranged in square grid, planted into large pots with sitting benches around them.



The entrance/exit to the Metro Station is centrally located at the Panepistimiou Street thus introducing direct access from Omonia Station to the newly pedestrianised street. A lengthy ramp, which is actually the prolongation of the Panepistimiou Street, sinks the pedestrians' movement to the underneath square. A water feature develops alongside the ramp and appears in both levels integrating them visually. Surrounding the round plaza, a series of shops bring back familiar memories of past uses - the underneath stores located at the electric subway exit.

Lies in two levels, Omonia Square, becomes a hub of multiple traffic flows with a variety of movements and uses, a multi-mobility urban hub.^[5] A place where multiple networks and traffic flows co-exist into a safe and high quality public space.



3. Functional, aesthetic and environmental characteristics

3.1. Functionality

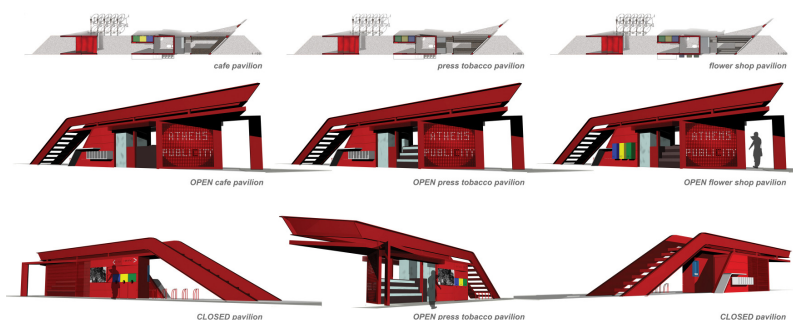
The proposed system intervenes in such manner as to allocate pedestrians and light vehicle circulation into public space. Active (moving) and non-active (standing) states are equally important. Tram, bicycle and pedestrian lanes are defined by green zoning while priority is given to comfortable pedestrian use. The pedestrian-oriented system takes into account the extended size of Panepistimiou Street and the fact that it slopes downhill towards Omonia Square and so the cycle route follows a non-linear direction to prevent high speeding.

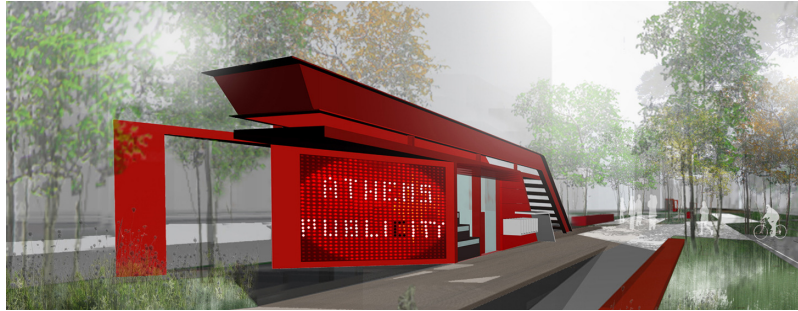
The proposal sets up a comprehensive and unified functional system. This includes all traffic flows (pedestrians, bicycles, public transport and all motorised conveyances for street travel) together with all those necessary elements that shape the public domain (landscaping, sitting, services, street furniture, lighting etc.).

A common characteristic of the Greek urban space, is that it is particularly charged with heterogeneity caused both by the built environment and the variety of disparate elements of street furniture and signage. By incorporating all necessary street elements under a unified system, we can partly tackle the effect of heterogeneity with a functional approach.

The urban multi-tools: These are compact, lightweight built structures scattered throughout the linear route and the squares incorporating essential urban furniture. The characteristically elongated red-coloured structures house a variety of small stores, such as cafes, news and magazine stands, flower shops, gift shops etc. They function as meeting points for pedestrians as well as spaces where people spend time in and explore since they have access on their roof tops.

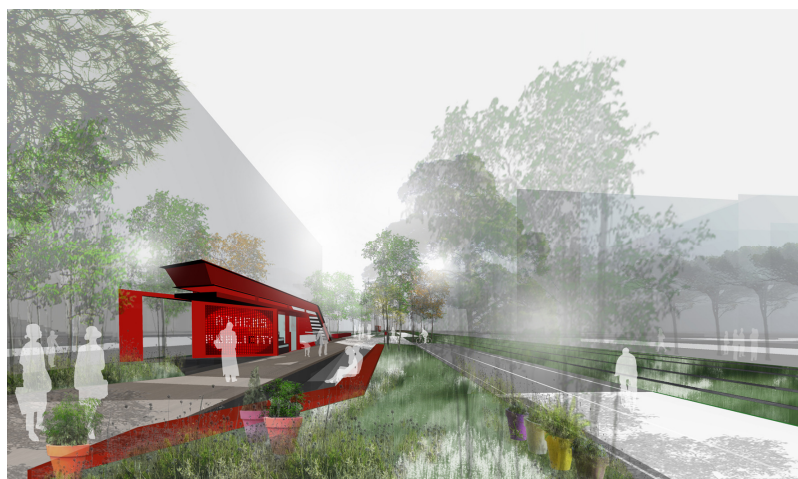
These are the “urban multi-tools”, gathering a variety of functions like stopping for coffee or for something quick to eat, places where one could safely park a bicycle, explore maps or get informed from digital projections and access the web, use the public phone or recharge their own. They also incorporate essential urban services like garbage and recycling bins, public phones, useful information for the city, maps, way-finding signage, etc.





Sense of place and the feeling of “ownership”: The primary factor for the operational success of an urban public space is to become “owned” by the users and to ‘interact’ with them. To engage people with the public space and communally shared issues, it is essential that people envision themselves as part of the urban fabric, and understand that their individual actions make a difference to the common good. They also need to trust other urbanites to act accordingly.

By taking into consideration this fundamental parameter of public space ownership, the proposal promotes, both via design and management tools, the citizen’s active involvement. The “urban multi-tools” in particular, could become spaces of interaction with the user-citizen or visitor by making use of digital technology. Digital media may be employed to foster a shared sense of belonging and responsibility, a feeling that the public space is ‘ours’. Urban multi-tools will explore how digital tools for story-telling, urban games, data visualisations and interactive media facades can help foster a sense of place and a sense of “ownership”.



Collectives and citizens’ initiatives could intermediate in order to turn the public space into common space. Some of the “urban multi-tools” (for example the open-library) could be operated under citizens’ collective management systems thus activating the means of public space “ownership”.

“Owning” the public space goes further beyond the action of just

using it. It contains the notions of co-designing and co-shaping it. Accordingly, the proposal places responsibilities in the individual and allows for processes that will determine the appearance of certain areas in the long term. One of such processes is urban gardening where by planting; people actively participate in the creation and development of the project. Part of the envisaged success of the project will come out of such forms of communal participation.

3.2. Aesthetic features

The overall aesthetics of the proposal aims to create a contemporary urban environment equipped with high quality urban features that allow for familiarity and integration into people's everyday life. Green spaces become an integral part of the proposed aesthetics, not an added geometric element. Green zones are both functional and efficient, non-decorative areas that create comfortable urban landscapes where daily activities take place. The proposed landscaping of the areas surrounding the monuments of the Trilogy is an attempt to "quiet down" their monumental scale and to integrate them into the overall framework.

3.3. Environmental features: a new ecosystem

Green space development, enhancement and expansion, is the sole way to creating sustainably functioning modern cities. The public space of a city can be designed in such ways as to form an ecosystem, with its interactions, diversity, heterogeneity as well as coherence. It is up to every single detail: from the urban features, the choice of materials, the planted species, the selection of outdoor lighting that must contribute not only into producing high quality public space but mainly towards organising a space that is subtly "inscribed" into the existing urban frame, a space whose management and maintenance does not require the waste of valuable resources (energy, water, etc). The proposal creates a unified and uninterrupted environment dedicated to pedestrians and gentle mobility. The system evolves into an ecosystem balancing the presence of the natural and built environment.



The creation of comfortable conditions for the users (thermal, visual, auditory) depends more on designing the landscape and planning the vegetation and less on the urban elements. The continuous proposed green-space framework with the individual configurations and multiple layers (low, middle, high) enhance the sense of comfort into the urban public space, has a positive effect on the users' behaviour and encourages interaction during different seasons of the year. Improving the micro-climate, providing protection from bad weather and the city noise, are all attractive features that reinforce space use and appropriation.

3.4. Water Supply – Irrigation – Water Management

Efficient water use and management are among the most critical parameters for the project. The basic principles to be considered on that are: (a) Water needs and consumption should be kept low and (b) No potable water should be used for irrigation.

The most crucial parameter related to the water consumption in the area is the planting type. The selected kinds of plants have low water requirements and tolerance to water of increased salinity. Water saving could be also achieved by using automatic systems based on the sub-surface water irrigation (sub-surface dripper lines). In this way, the final water consumption and the peak water demands can be significantly constrained.

Possible sources of non potable water to cover irrigation needs are: (a) Underground water pumped out from water drills, existing or even new, (b) Rain water from the terraces and roofs of large buildings, (c) Clean water produced from waste water treatment plants that could be further cleaned and transferred to the center of the city.

Recent researches ^[6] show that the underground water quality in Athens is not prohibitive for irrigation purposes. The Municipality of Athens is already trying to expand the use of water drills for irrigation purposes. So the examination of the possibility to organize existing or new drills in a network to serve the area is necessary.

Local systems to harvest, clean, store and distribute rain water from large buildings' roofs could be probably considered. These systems however are technically complicated while they will not be able to cover full water needs.

A third choice seems to be the one of transfer extra treated water produced from waste water treatment plants. This proposal has been submitted for the area under construction in the Delta of Faliro and the area of the ex Hippodrome. If this idea is realized, an extension of the water supply main lines to the Athens' center could be considered.

3.5 Fundamental landscaping guidelines considering the existing situation

The analysis of the current situation and identification of potentials, were based on site visits and review of the competition elements. In detail, most of the linearly arranged trees are: acacias, sycamores, Judas, goldrain, bitter orange, jacarandas, mulberry, poplars and pine trees.

Generally, the trees of the area vary significantly. Both character and potentials of the existing vegetation can be summarised as follows: lack philosophy, deficient (especially in certain areas), not functional, display great variation between study and adjacent areas, subjected to harsh trimmings, show signs of illness, dryness and age imbalance (elderly plants next to very young ones), show intense degradation and a generally bad state with the exception of isolated quality cases.

In accordance with the analysis above, the plant resources proposal (current and new) aims in creating zones with favorable microclimate; comfortable outdoor spaces that harmonise the built environment with the landscape.



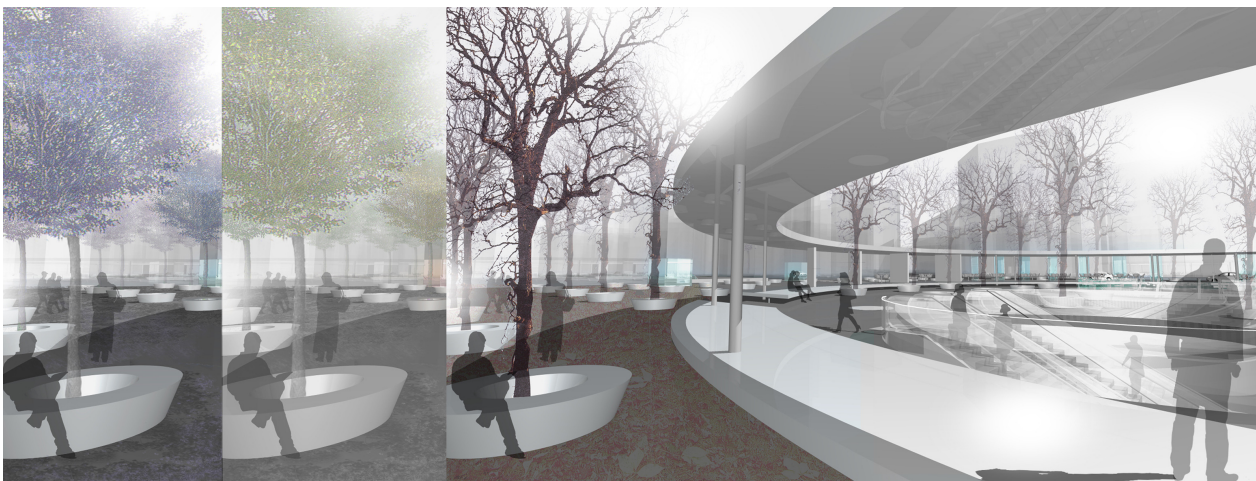
The new species will need to grow and thrive in their chosen location. This will only happen if the location of origin has identical or similar site requirements to those in the study area. The selection and proposal of new species took into consideration all parameters that will influence and direct planting, these are: microclimate, aims and objectives of the intervention (architectural - sustainable design, comfort conditions, human needs, aesthetic enhancement, compatibility, etc.), site parameters (streets, gardens, etc.), ecological footprint (natural light, air quality and flow, zones of potential vertical grow, etc.), ecological and morphometric characteristics of existing plants, maintenance requirements.

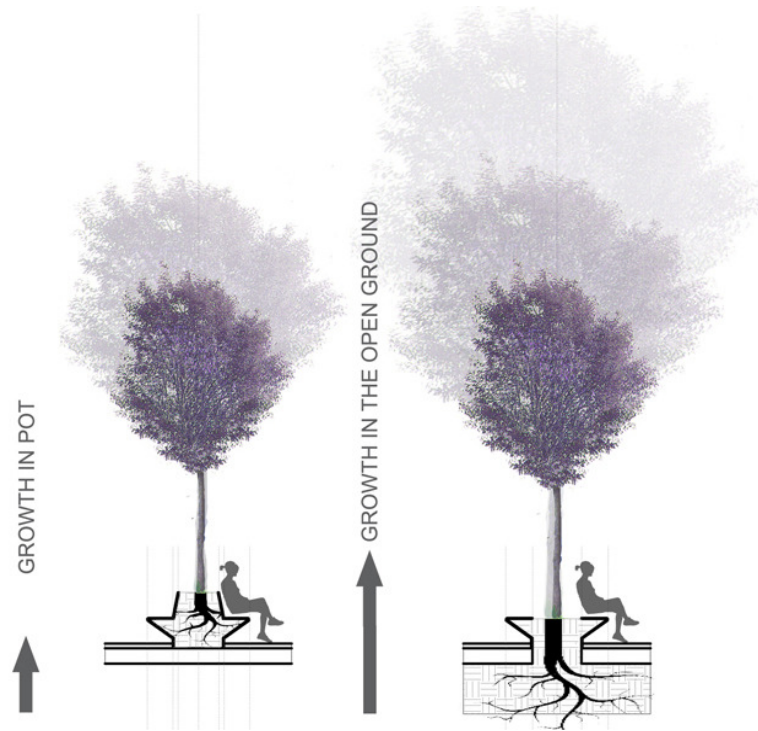
According to the evaluation so far (climatic conditions, pollution, existing vegetation, etc.) we propose a thorough evaluation,

maintenance and rejuvenation plan for the majority of the existing plants. These will be further intensified with the addition of new plants that satisfy, as far as possible, the special requirements of the area, the principles of sustainable design as well as the design guidelines. In detail, new trees (basically planes) and existing trees arranged in a line along the buildings are proposed for the axis formed by Panepistimiou, Amalias and Patision streets.

Centrally to pedestrianised Panepistimiou Street and throughout its length, groves featuring a variety of trees are planted. These include tree types found in the wider region such as: robinia pseudoacacia, populus nigra, koelreuteria paniculata, olive trees, pines, platanus acerifolia and cercis siliquastrum as well as phoenix canariensis at selected locations. At the Trilogy and the National Garden, the phoenix canariensis are added as a continuation to the existing ones. At the tree clusters along Panepistimiou Street we propose some citrus aurantium which relate to the citrus aurantium suggested for all vertical narrow streets, the pedestrian street of Korai and Antonis Tritsis square. Dense tree planting ensures vertical development, a requirement of this study. Also flowering trees announce the change of season and in particular the coming of spring.

As far as planting is concerned, the tram lane is not separated from the rest of the pedestrian street. However, we propose the use of fine gravel that will gradually be covered by ground cover plants which grow in dry soil. Also in selected areas we see a variety of dry soil tolerant shrubs with some of them flowering throughout the year.





Jacarandas arranged in square grid cover the entire Omonia Square adding value to its special character. The trees are planted in purposely made raised structures that are also used as sitting benches. Some of these structures function as pots since they are located right above the Metro station. Consideration has been made for not restricting the root system to ensure similar developing patterns. This particular type of tree has been chosen due to its relatively sparse foliage, like a light veil of shadow that allows the images of the built environment to penetrate through. It also forms part of the current line of trees at Athinas Street whilst it displays exceptional blooming season.

3.6 Urban Lighting:

In praise of shadows

The lighting scheme on the axis of Panepistimiou Street, is based on three core principles that combine lighting scenarios related to place-use-event. The objective of the lighting scheme is to enhance the architectural form, materials and uses. The latest technologies of lighting sources (LED) and contemporary digital and efficient lighting controls, offer a flexible lighting system that can accommodate each individual need and is capable of creating an environment full of visual stimuli and sensations. Whilst satisfying functional and aesthetic requirements, the proposed lighting sys-

tem has low energy consumption with maximum lamplife and minimum maintenance.

The urban environment acquires special qualities during nighttime when the proposed lighting installation satisfies practical and aesthetical issues (security-amenity lighting-psychological lighting aspects). Playing with shadows, shade -colour temperature- and dynamic lighting, help create an unprecedented response to the nocturnal urban environment.

The fundamental concept of this Lighting Design Proposal is to expose the user-nighttime stroller to a sequence of visual stimuli with variation both in intensity and concept. A powerful visual effect is created when projecting the shadows of trees onto the ground, between the streewalls right and left. The act of this projection has multiple meanings. On one hand, the landscape (existing and new trees) becomes part of the overall design. The diversity of shadows on the other hand, related to the time of year, contributes to a continuous, ever-changing nighttime image reaching the eyes of the user-observer.

The possibility of altering the colour temperature of the proposed light results in a continuous alteration of the projected image. The luminaires' networks are controlled by a central digital management system thus optimising their efficiency and the ability to adapt the light scenario in various needs. At the same time there is the option of digital group control to create different lighting scenarios that can be intensified during events and happenings (fest lighting-event lighting). Such scenario is the creation of coloured shadows (in shades of warm white 2000 K to cold white 6000 K)



Across the area of intervention and when appropriate, the colour changing properties of the fittings and the digital controls can be adopted to suit the individual morphology and practical requirements. At certain locations, light can contribute and intensify the architectural purpose as well as concept.

At Omonia Square in particular, the central idea behind the light composition is a dynamic lighting installation focusing on shadow interaction, nighttime and seasonal changes. Shadows are projected to the ground in constant motion (rotating-changing-moving shadow) depending on the time of day, the orientation, the solar track as well as the occasion. It is worth noticing that throughout the area of intervention and at the points where dynamic lighting is installed, the changing rate and rotation period is too mild to be perceived by the human eye - changing rate is slower than human eye adaptation.

The proposed lighting scheme underlines, reinforces and integrates with the architectural - morphological proposals. It sets to introduce new parameters to nighttime cityscape: aesthetics, technology, safety and longevity. The overall effect of the lighting

intervention generates a new environment of visual stimuli, image alteration, visual sensation and emotion.

Feasibility Study

4.1 Technical details of the proposal

Construction method and phases

The proposal is structured in a way that allows for flexibility in the choice of construction method and phases. The project can be completed in one or more phases, depending on timing and financial availability. In any case, the primary condition for planning the construction phases, is to cut vehicle access from Panepistimiou Street whilst allow it on the vertical ones. A linear organisation of site works would be the most efficient way of planning construction. This would follow the linearity of the proposal and wouldn't prevent other operations, such as commercial activity, pedestrian traffic and public transportation.

The area that draws special attention and specific construction planning is the hollowing out of the ground surface at Omonia. Even in this case the operation of the underground station will be uninterrupted.

It is important that during construction provision is made to maintain the operation of adjacent shops, especially in today's difficult times. According to the linear development of site works, pavement laying and completion will finalise the works. However, opening of shops and pedestrian traffic are important issues to consider in order to avoid adding to the burden of a desolated centre.

A major point during construction is tree and vegetation planting. The level of success for such public project and the degree of 'ownership' lays greatly in the quality of planting. The environmental conditions of comfort, shading and cooling depend solely on the greenery since there are no other means of shelter or other techniques of providing protection. Athens' exceptionally favorable climate, the selection of tall trees and free space - without any built obstructions- will assist to their fast growth. The "urban neuron" system should be treated like a living organism even during construction phase. It is an organism that grows and expands within the body of the city; giving necessary time for plants to grow as well as for people to live in, take ownership and ultimately shape it.

Construction issues / special structures

The proposal is free from complex and technically challenging

structures. However, the most significant “deviation” takes place at Omonia Square. Omonia’s redevelopment has to tackle a number of additional difficulties due to multiple traffic flows that converge towards it. Nevertheless, we believe that the decision to relocate the three Metro access points inside the square core will have a significant effect on its geography by creating a vibrant and alive space; symbol of a revitalised centre.

In regards to the relocation of the three Metro entrances / exits in the centre of the square, we suggest:

- To relieve structural tension around the hollowed areas, some rebuilding work is required. In line with the relevant structural codes, the adjacent slabs and beams will need to be removed and reconstructed to provide the required load-bearing capacity.
- Throughout the duration of the works, all involved areas will be supported by temporary steel frames, with a safety deck on top, in order to minimise the interference to the functionality of the station.
- The light metal structure will be fixed onto the existing reinforced concrete slab with stainless steel anchors.

An important design decision for the proposed “urban neurons” is the integration of the archaeological findings that may emerge during earthworks. The decision to leave the final synthesis free from any archaeological discoveries comes from vague indications of important findings along Panepistimiou Street. Moreover, lengthy procedures due to archaeological excavations would create long delays in the project programme and completion.

4.2 Economic details - budget

The project budget is estimated to be within the limits set by the competition. There are certain factors that facilitate in reaching an economical budget: the extend of areas with greenery, the amount of trees used and the lack of shadow providing structures that usually escalate the cost of a project of such nature. The only technically demanding area where cost exceeds the average, is the construction of the three access points in the centre of Omonia Square. In summary, the budget is presented in the table below:

n	Categories of required works	Total (euro)
	1 st category : CONSTRUCTION WORKS	
1	GROUP A: DEMOLITIONS, EARTHWORKS	3.060.000
2	GROUP B: CONCRETE CONSTRUCTIONS	3.700.000
3	GROUP C: METAL CONSTRUCTIONS	2.550.000
4	GROUP D: TIMBER STRUCTURES	1.171.000
5	GROUP E : DECORATIONS AND FINISHES	4.850.000
6	GROUP F: IRRIGATION, ELECTRICAL WORKS	6.150.000
7	GROUP G: URBAN EQUIPMENT	720.000
	TOTAL COST OF CONSTRUCTION WORKS	22.201.000
	2 nd category : LANDSCAPE WORKS	
1	GROUP A: EARTHWORKS	81.000
3	GROUP B: PREPARATION FOR PLANTING	32.000
4	GROUP C : PLANTS AND TREES	620.000
5	GROUP D : PLANTINGS	85.000
	TOTAL COST OF LANDSCAPE WORKS	818.000
	3 rd category: UNDERGROUND LEVEL OF OMONIA METRO STATION	
1	Construction work for the connection of the upper level of Omonia Square with the underground metro station (new entrances, ramp, reformation of the space)	750.000
	Total cost of categories (1), (2), (3)	23.769.000

4.3 Socioeconomic aspects

Public – common – hybrid spaces: towards a new social city: In a city subjected to the spatial consequences of a deep crisis, the desired revival could commence from reactivating public space as long as it becomes «common and sharing space»; a public space that becomes a pot of life and of interactive events. Design and development strategies cannot exist outside the given economic situation. They can however, create healthy and reverse condi-

tions, triggering alternative dynamics under an unfavorable climate.

The strategic development and management of the proposed “urban neuron” in Athens’ public space, could extend to three important dimensions of space: spatial, social and economic / development. Aiming to revitalise the city, the proposal is a comprehensive system that intends to motivate major urban and collective / social resources such as:

The city’s public space; contemporary, symbolic and space of memory.

The available building stock (non symbolic and non-listed) that the current crisis is driving to desolateness. Along the area of intervention, there is an important part of the city’s built environment, which is now left empty. It is this stock that can be used as “common and sharing space”; a continuation of open public space, under alternative usage and management plan.

The creative human recourses of the city and especially young people (creative individuals, NGO’s, citizen’s initiatives, groups and collectives). Athens might be a city deep into crisis and decline; money-wise it is a bankrupted city but not human-wise.

Just like the proposal organises squares as “thematic nuclei” or “dendrites” it could incorporate, in the same manner, part of the unused building stock owned by the municipality or any other public agency. These built “thematic nuclei” or “dendrites” could function as a continuation of public space. They could become “common spaces” or “sharing spaces” with affordable rent prices lent to young artists or citizen’s collectives. Thus forming nuclei of development, collective knowledge and creativity, enabling social and economic life back in the city centre.

The proposal calls for the management of selected “urban multi-tools” to be organised in that manner, setting new standards of initiative and ownership of public space. Managing such project could help alter the stagnated contradiction between private and public space; an established misconception of the Greek city. The communal library located at Korai Street intends to tackle the clash between private and public and initiate new hybrid conditions of the two. People are asked to “leave” a book that they already read and take another one, just like they do in their own library. The open-air gym and urban gardening follow the same spirit. The success of these initiatives will be demonstrated in the citizen’s degree of ownership which will reflect the revival of Athens’ centre.

4.4 Project management and sustainability

A fundamental problem for every large scale regeneration project is to manage and sustain it so that it preserves its original qualities

and protected from vandalism remains alive and secure. It is important that the management and sustainability strategies are incorporated early on in the design process. When a project involves costly maintenance and resources, it is lead in rapid decline and abandonment in addition to being harmful to the environment.

In any case, however, sustaining the highest quality of any large scale project depends on strategic management. This is a grey area for Greece given the inability of municipalities to sufficiently undertake the task, together with the lack of other institutional intervention.

The “urban neuron” proposal aims to become a pilot design model and a prototype for managing public urban space in Athens. The scale of the project calls for a management strategy that goes beyond the usual Greek practice. We propose the establishment of a management scheme as a private legal entity which under the umbrella of Rethink Athens will bring together competent bodies as well as citizen’s initiatives dealing with public space. This scheme would need to set up a comprehensive business plan of management, maintenance and protection of the project; with forward-thinking methodology and tools, responding to its public character, focusing on citizen activation and participation.

References

¹ Like the cell replacement therapies in the latest fast-moving field called transdifferentiation, in which certain somatic cells are forced to adopt new identities

² Sarigiannis Yiorgos, “The social synthesis of the Athenians’ communal spaces in the suffering square”, magazine “7 days” of the newspaper Kathimerini, 1994

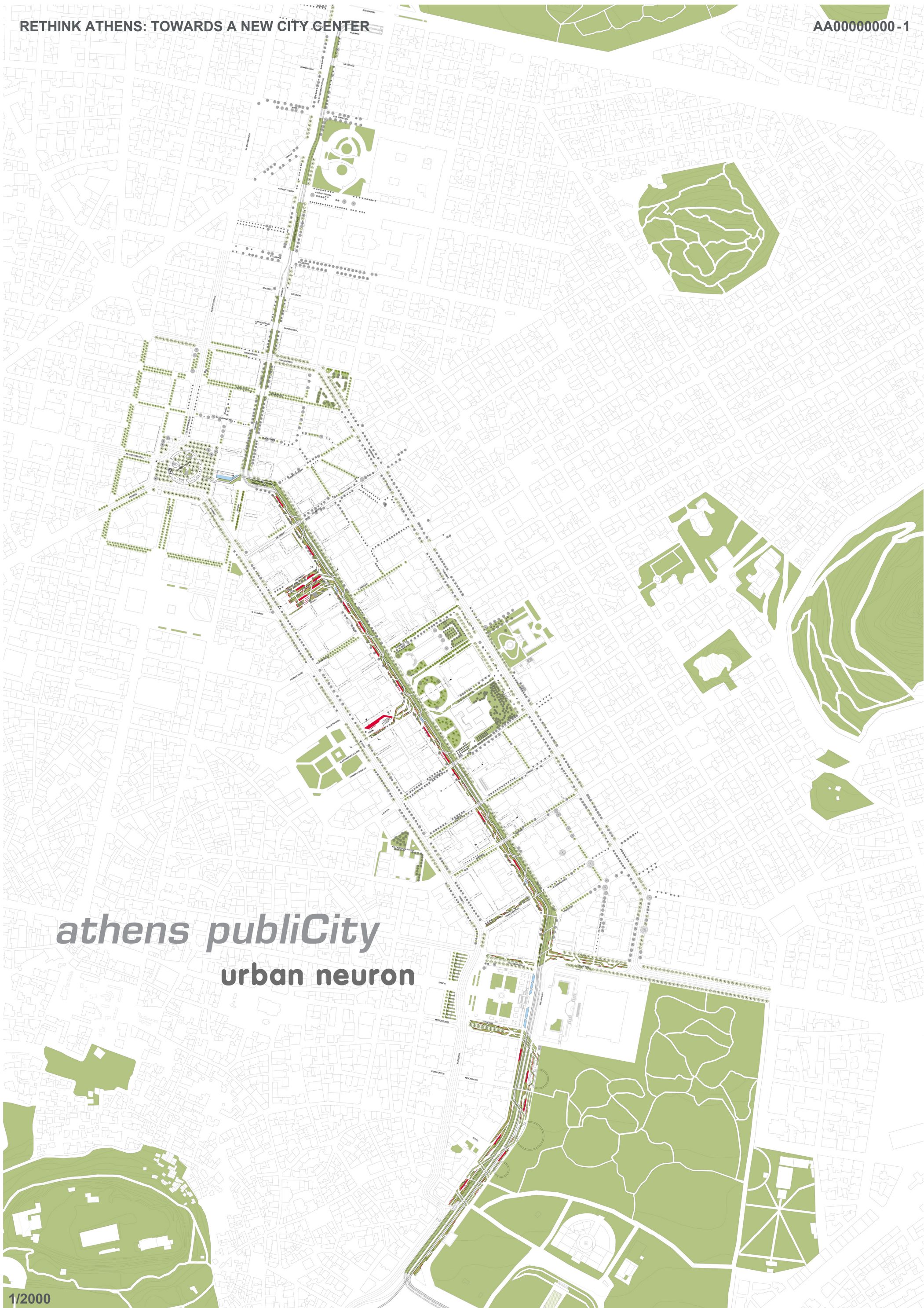
³ Koumantareas, Menis, “In a place where no light shines” in the novel “*Itinerant trumpeter*”, Kedros publications, Athens, 1989

⁴ Ioannou Yiorgos, *Omonoia 1980*, Odysseus publications, Athens, 1980

⁵ Ascher, Francois “*Multi-Mobility, Multispeed Cities: a challenge for architects, town planners and politicians*”, Rotterdam Architecture Biennial, Lecture 09/05/2003

⁶ Pilarinou A., “*The underground water’s suitability of the Metropolitan Municipality of Athens and Iridanou for irrigation purposes*” Agricultural University of Athens”, 2009

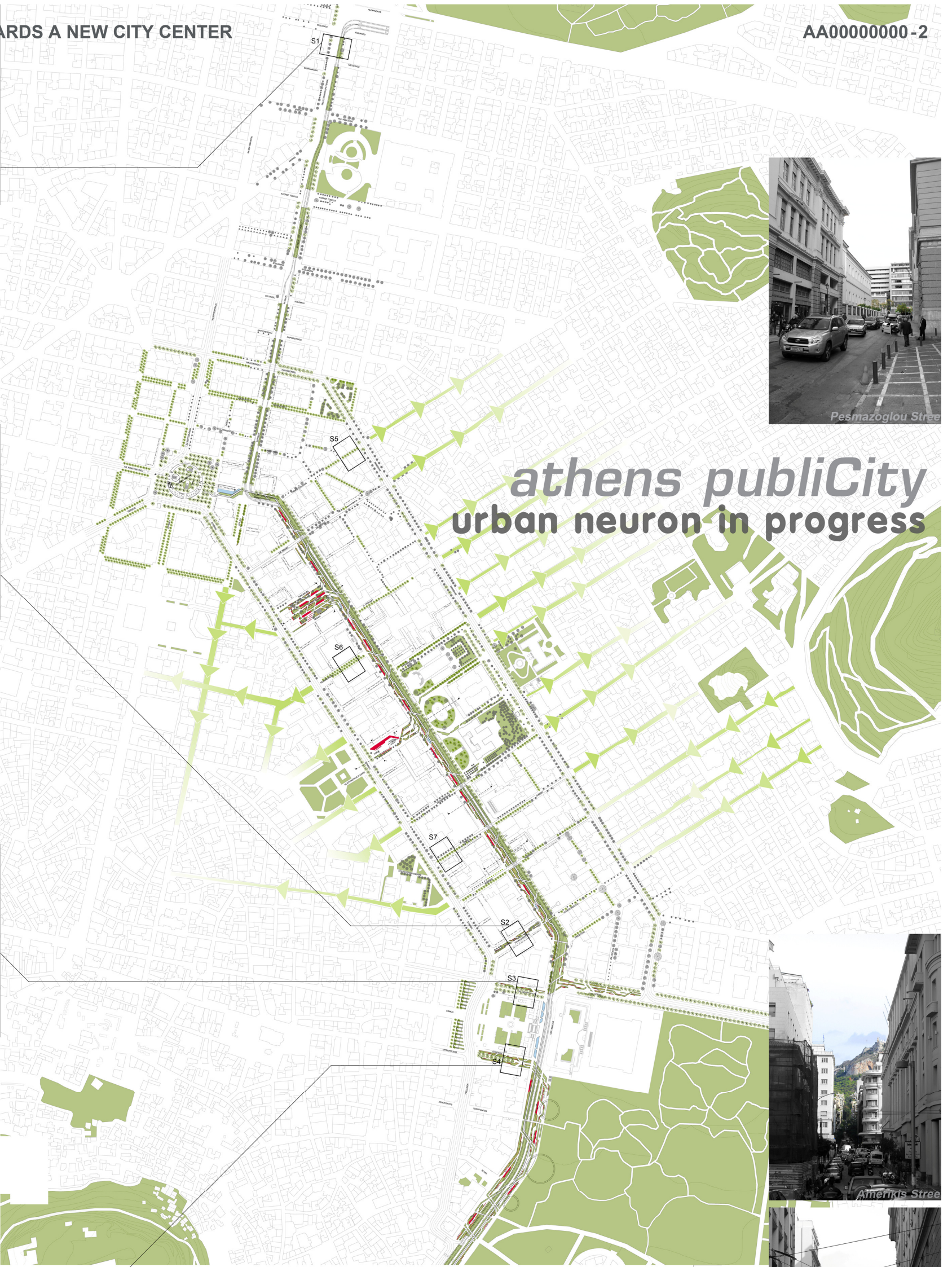
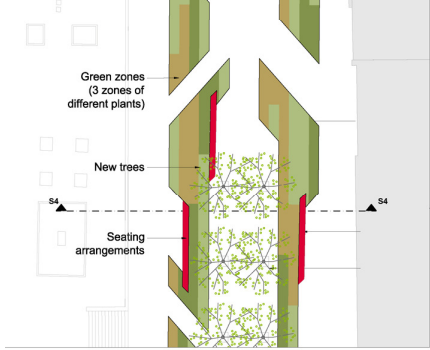
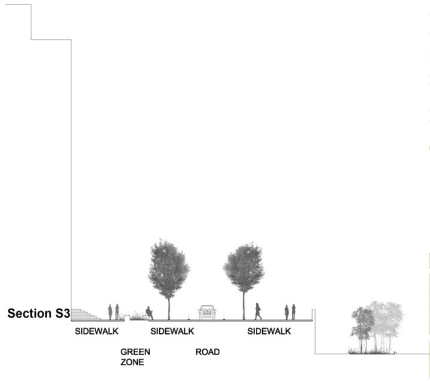
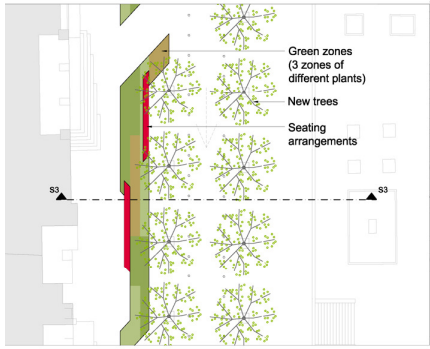
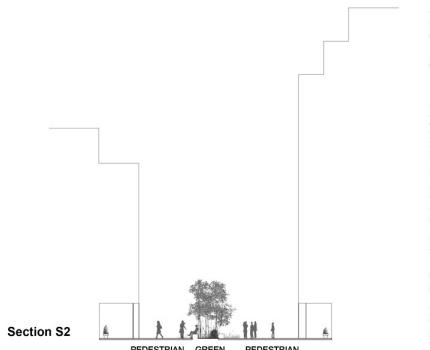
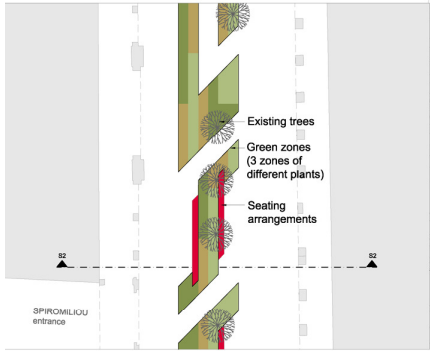
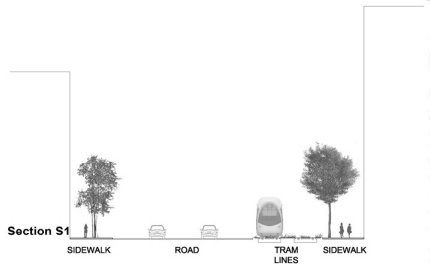
⁷ Referred to the book of Junichiro Tanizaki, “*In praise of shadows*”



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urban neuron

RETHINK ATHENS: TOWARDS A NEW CITY CENTER

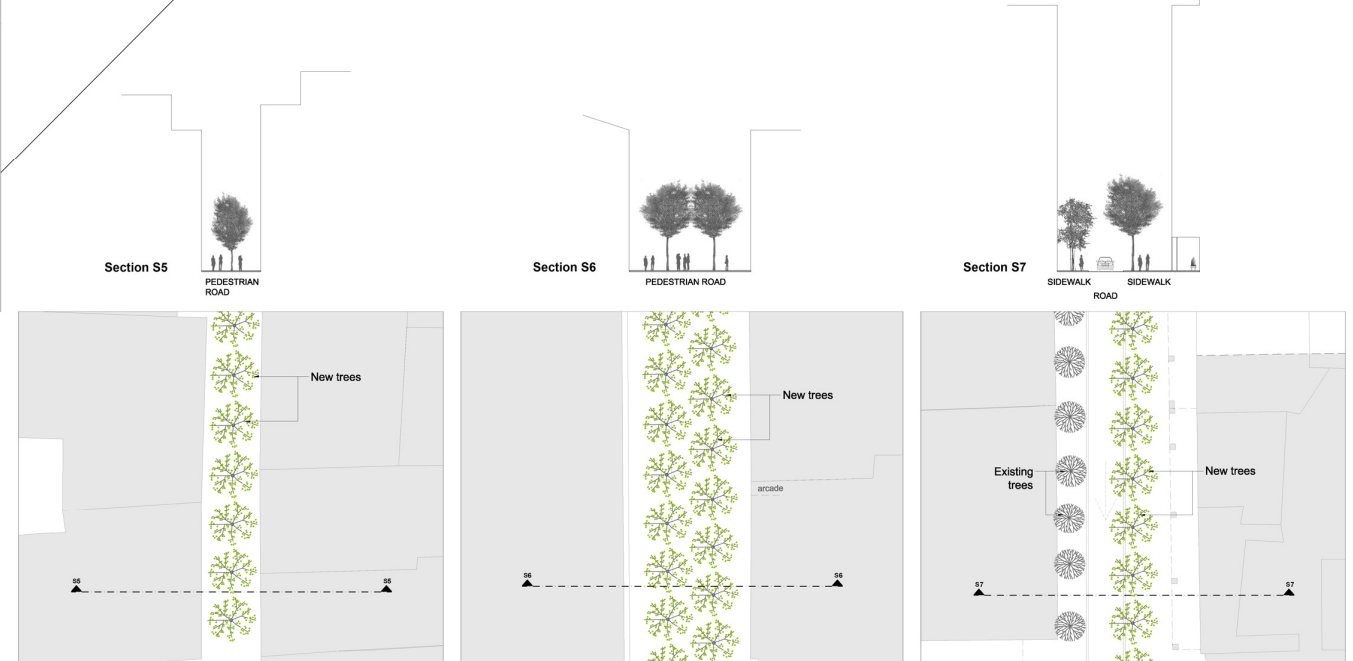
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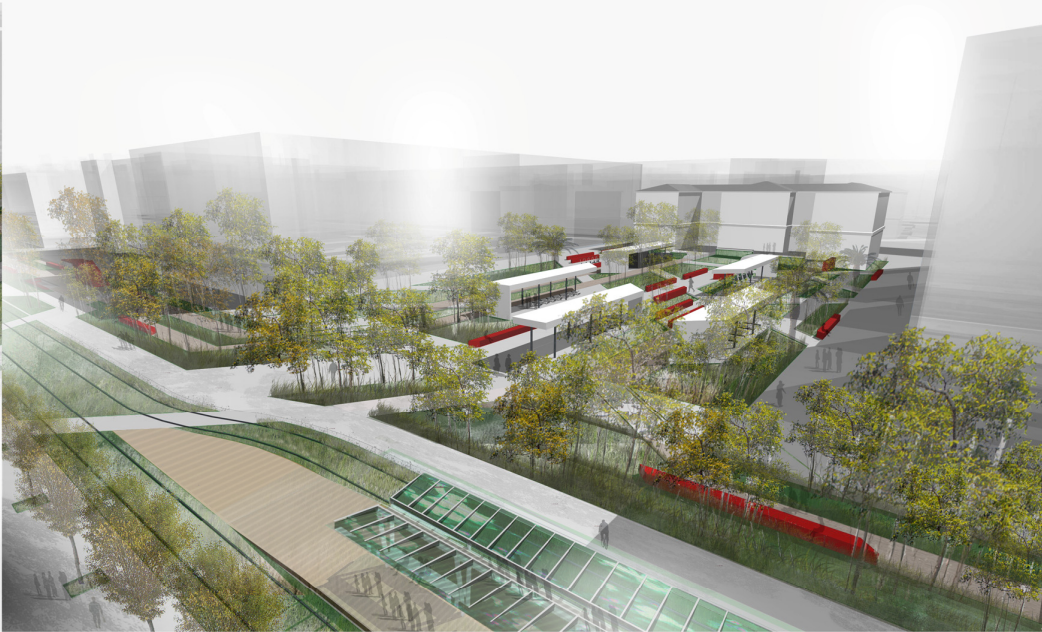
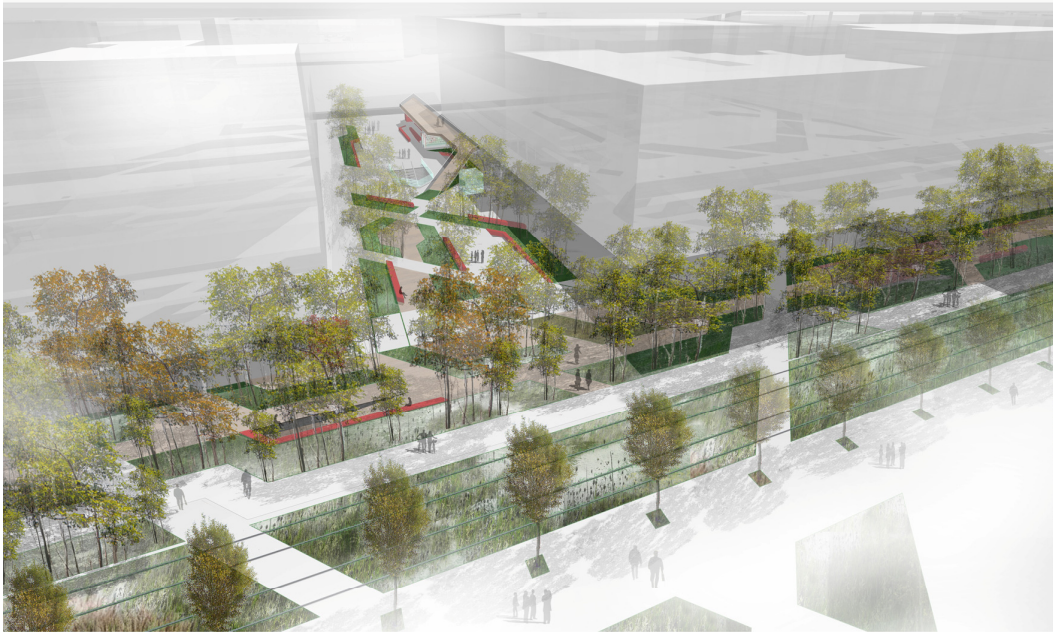


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urban neuron in progress



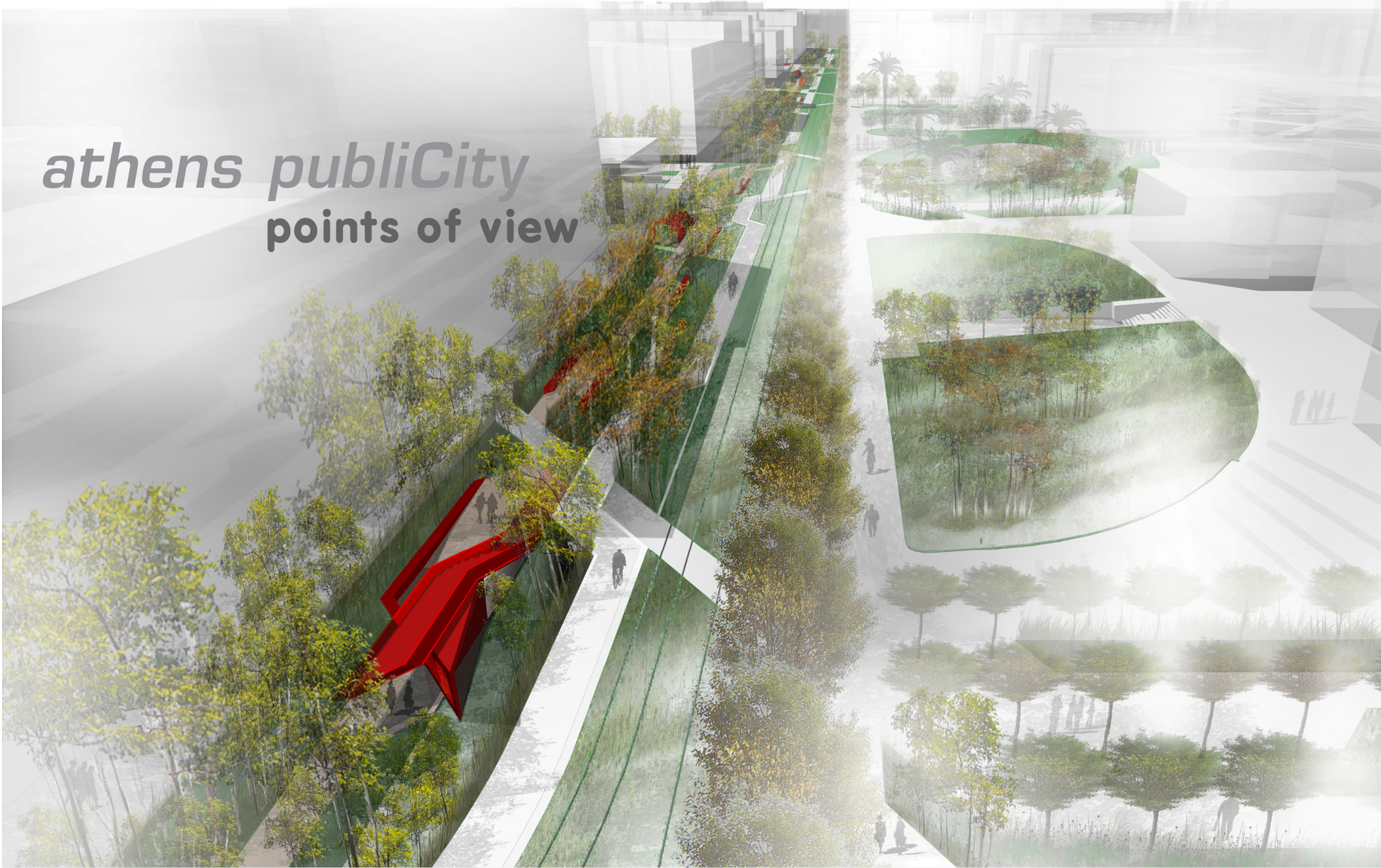
Typical sections and plans of the broader area



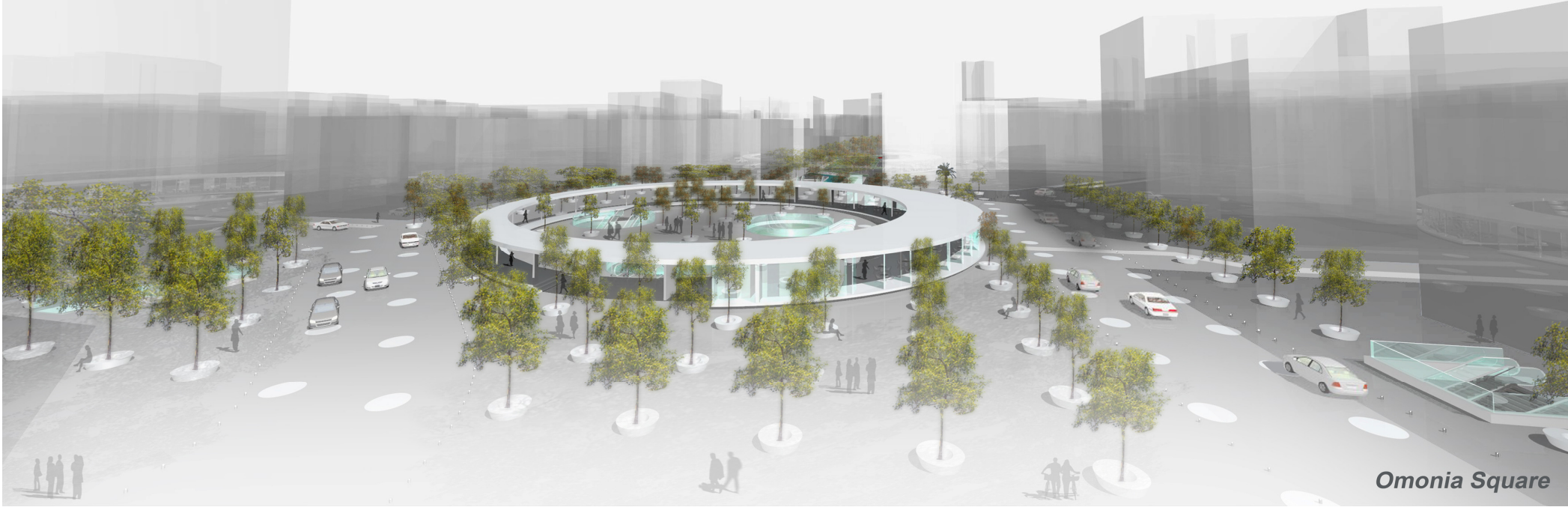


Korai and Panepistimiou Street

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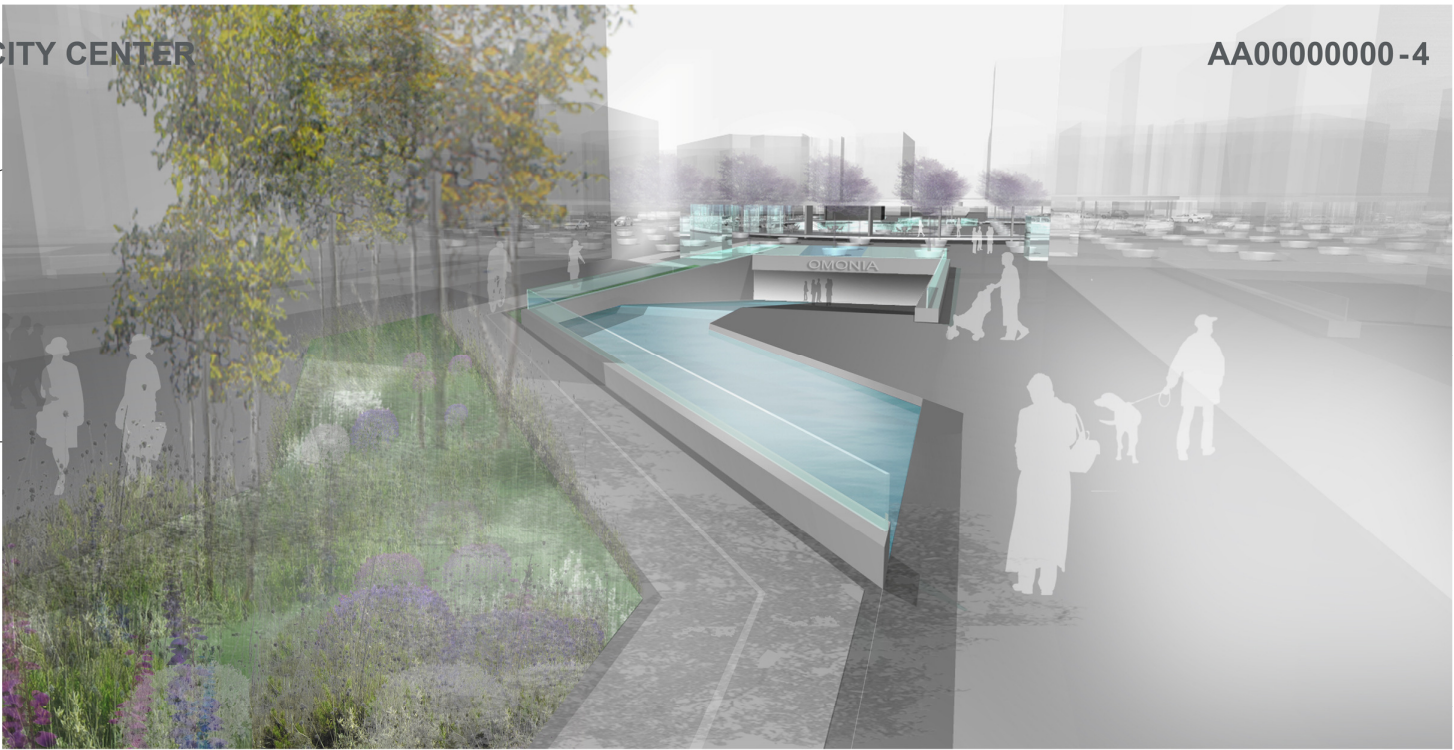
Panepistimiou Street



Omonia Square

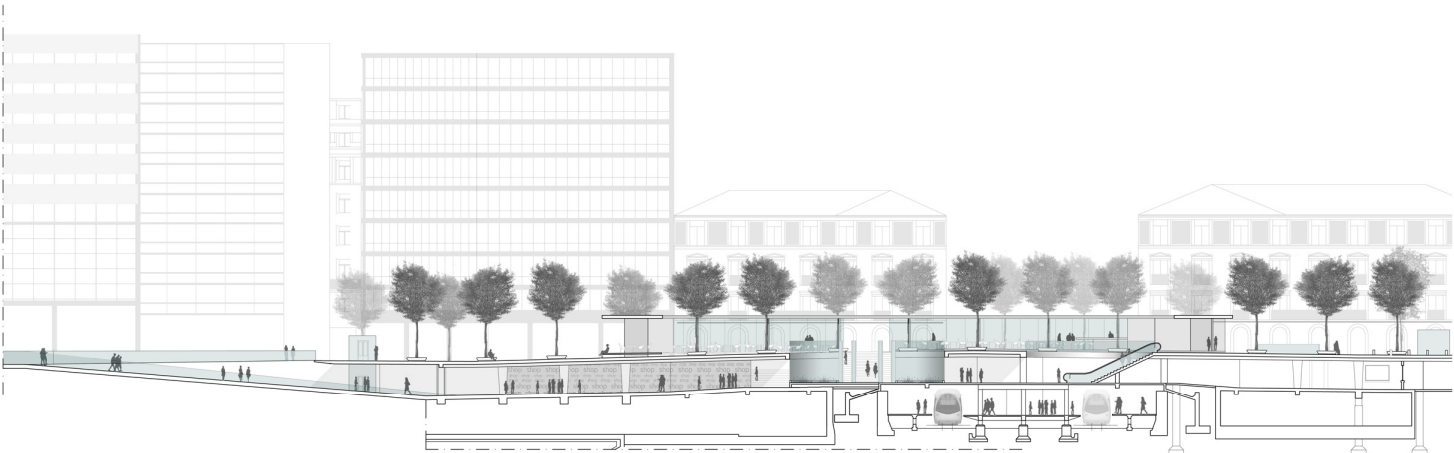
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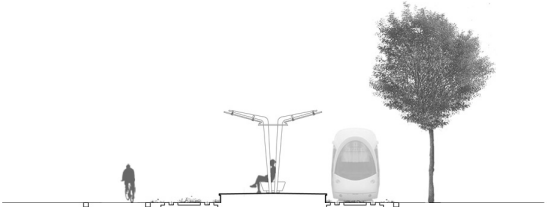
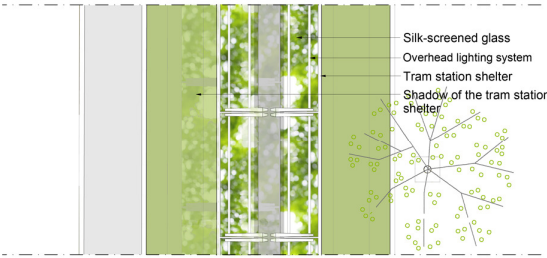


Section F-F

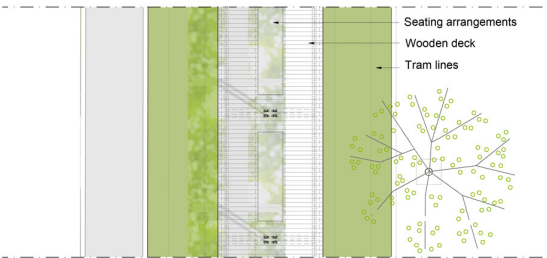
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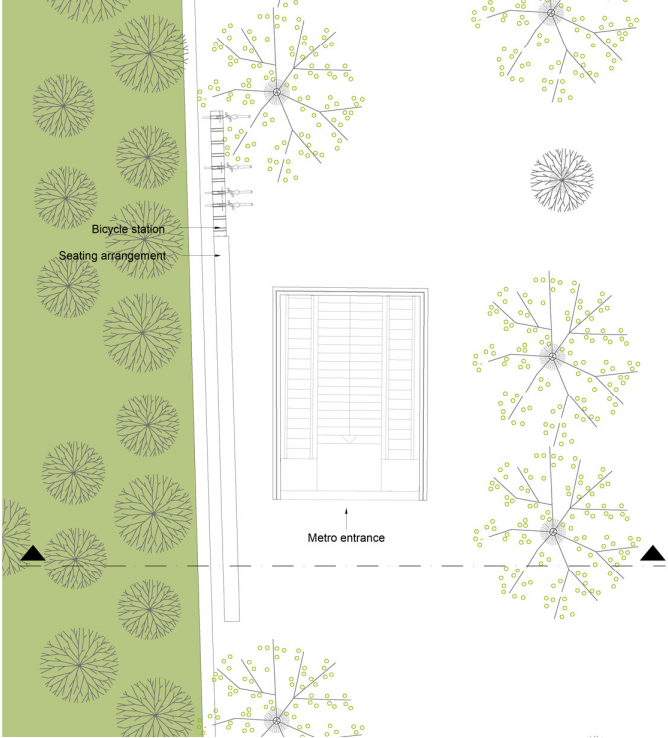
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Tram station 1/100

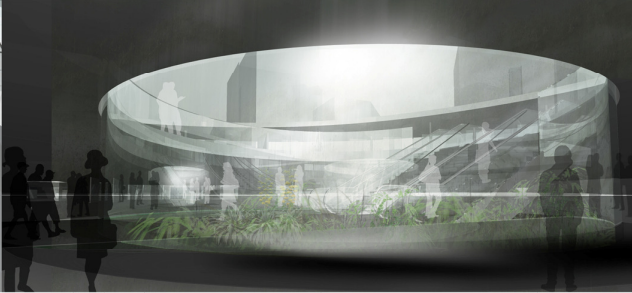
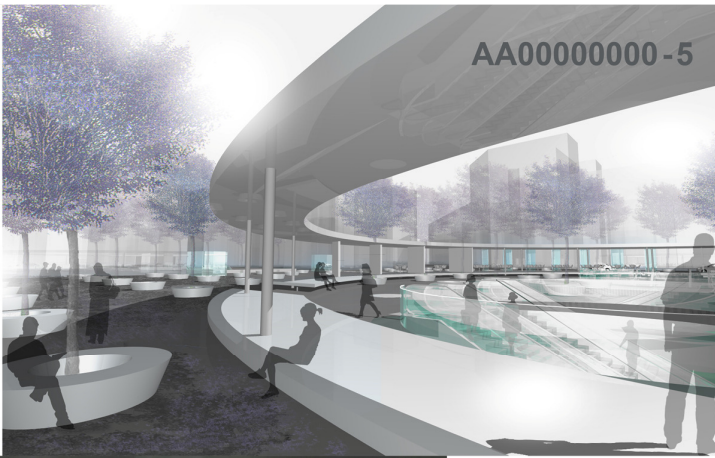


Metro station in Akadimias street 1/100



Metro station level in Omonia Square 1/250

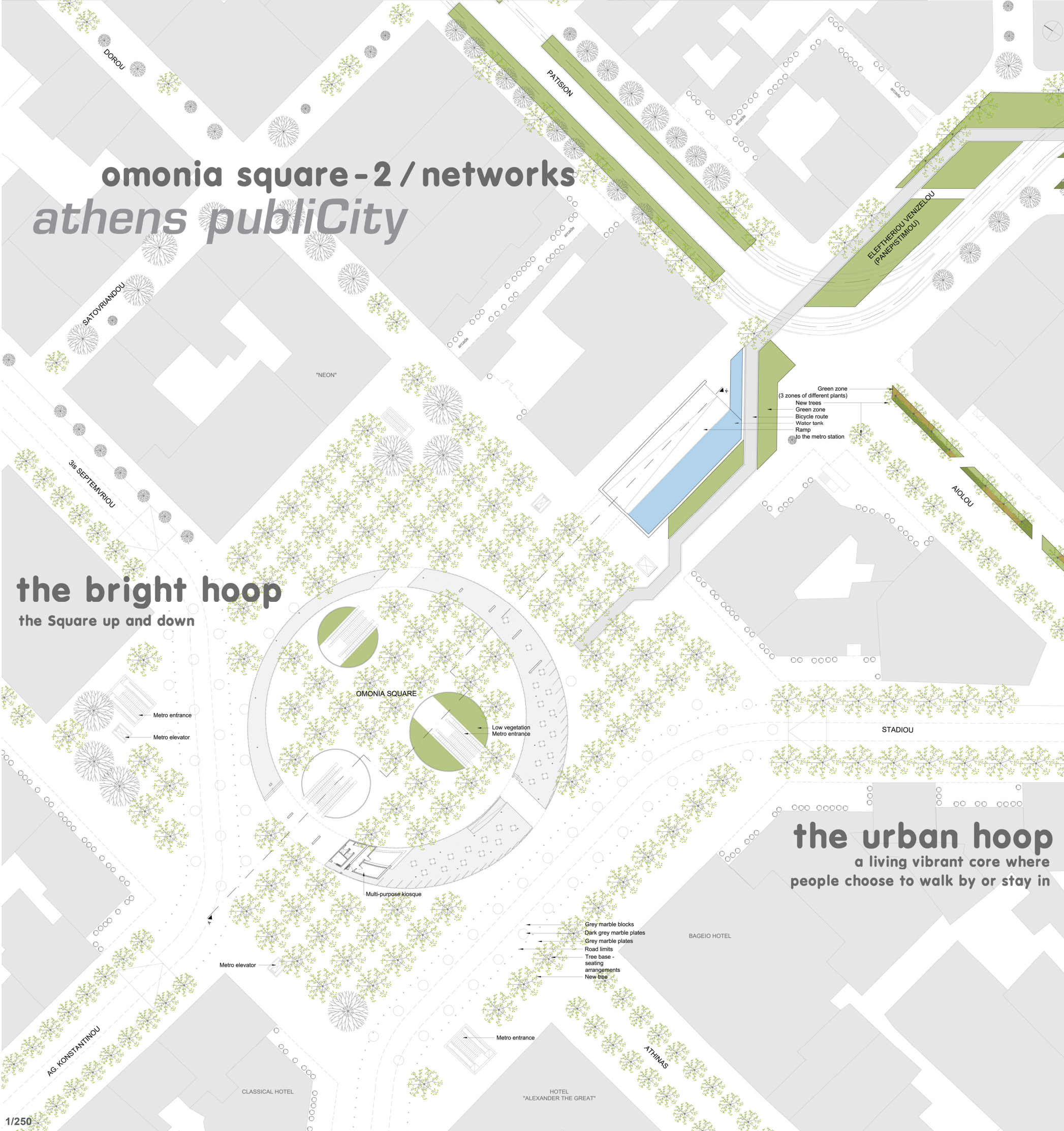
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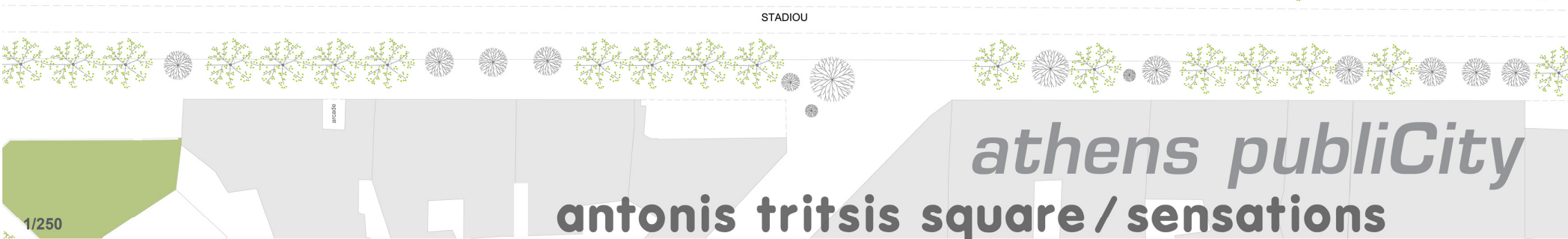
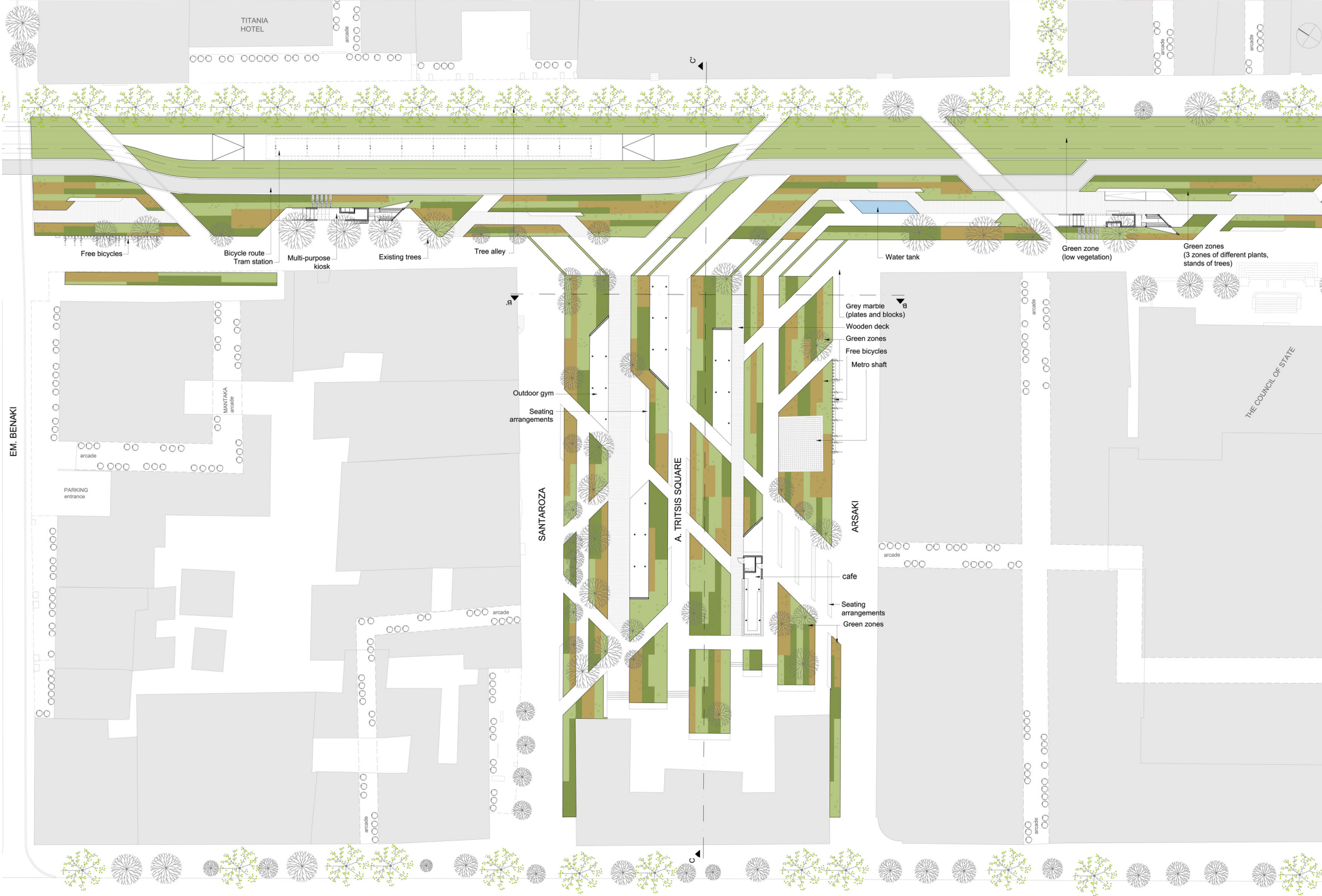


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the bright hoop the Square up and down

the urban hoop a living vibrant core where people choose to walk by or stay in





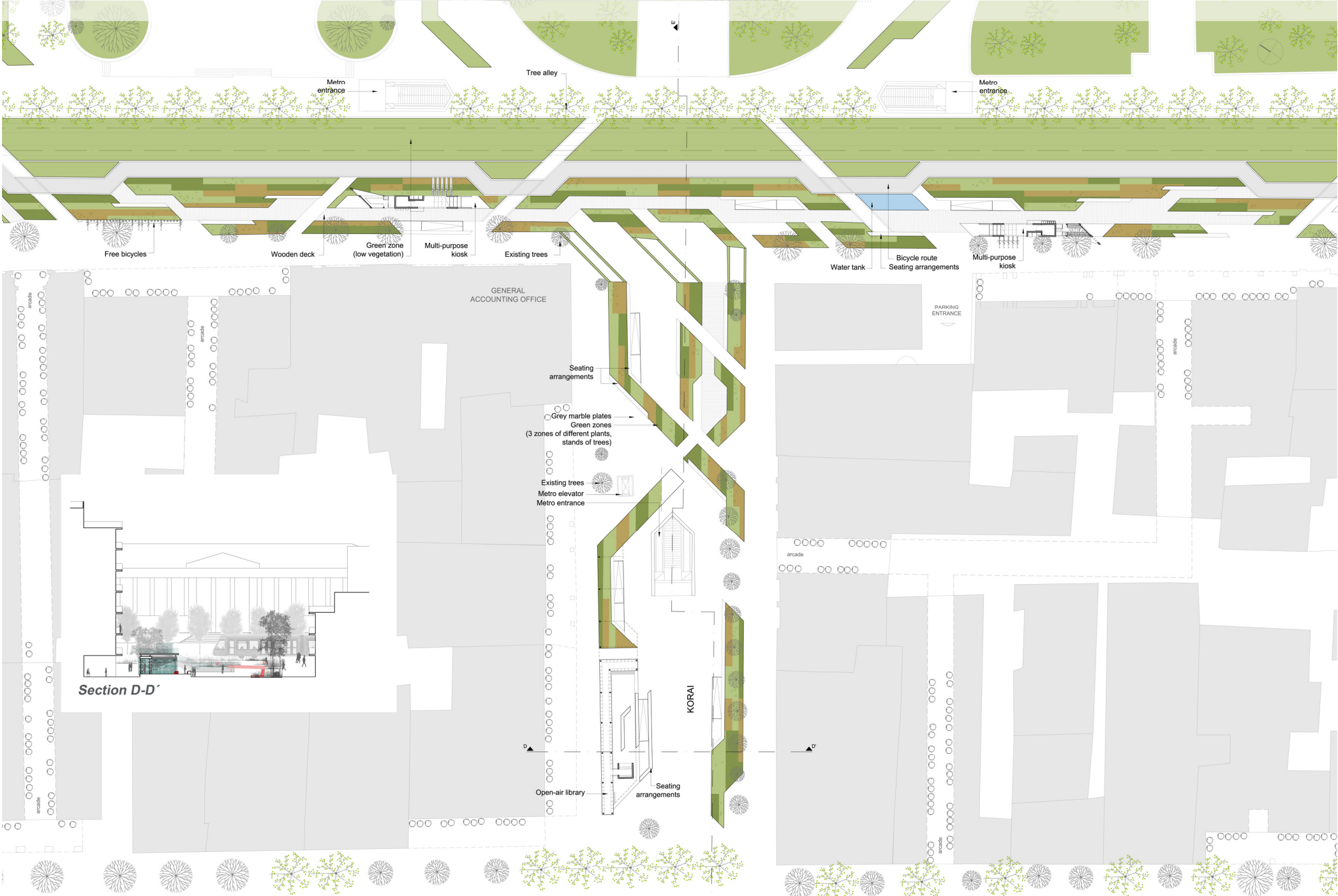
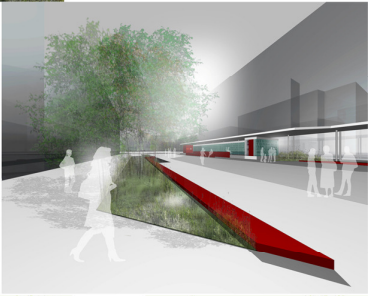
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Section C-C'



Section D-D'

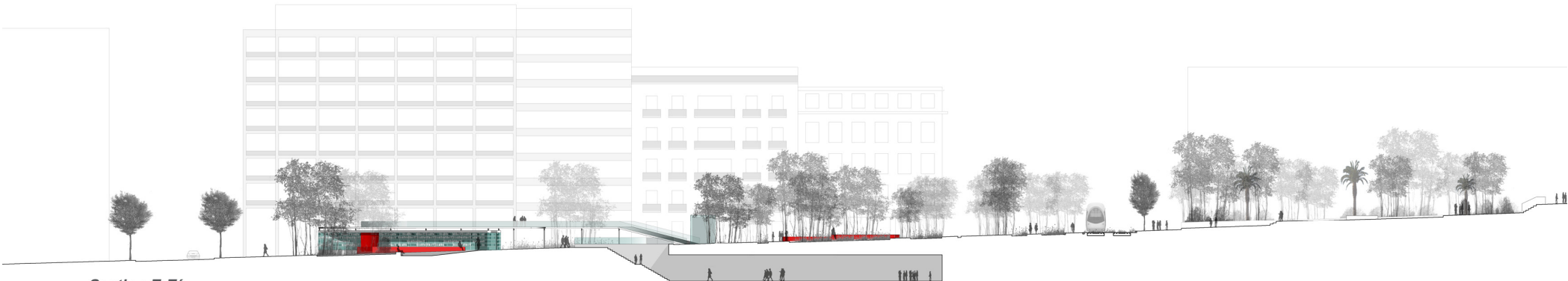
STADIU

korai street/ knowledge

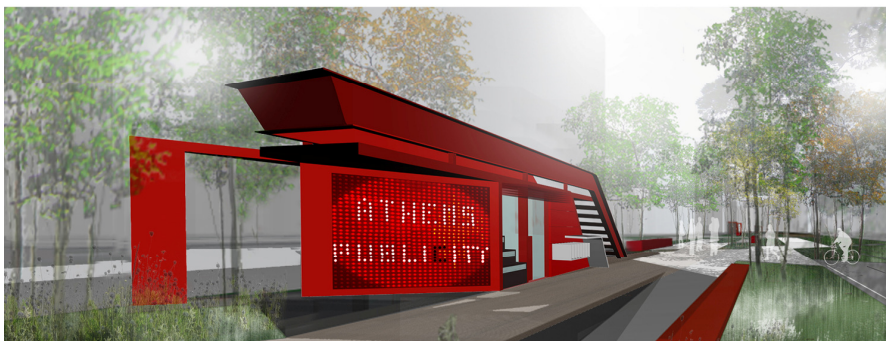
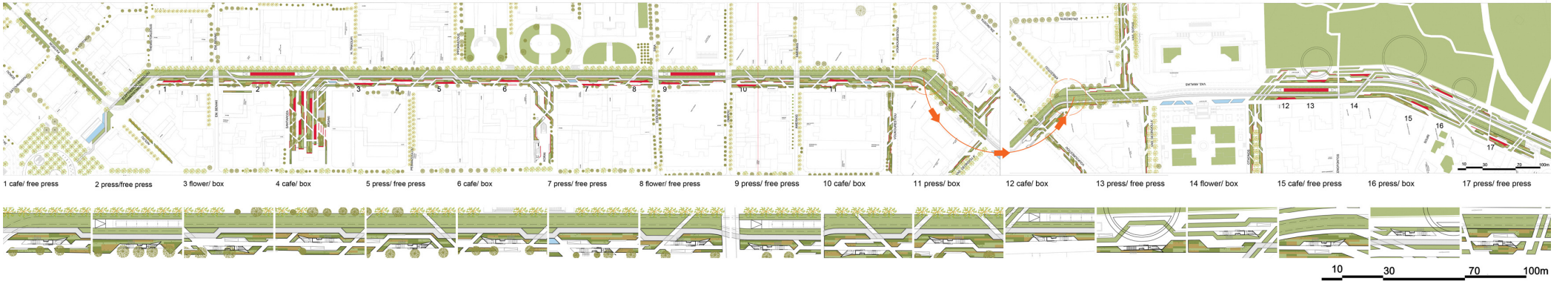
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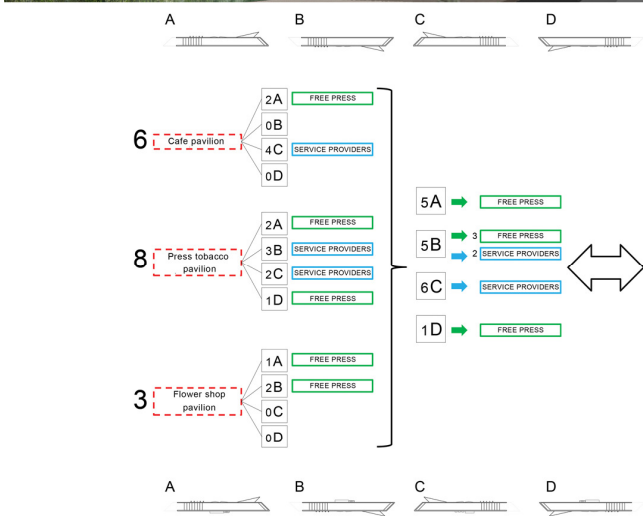
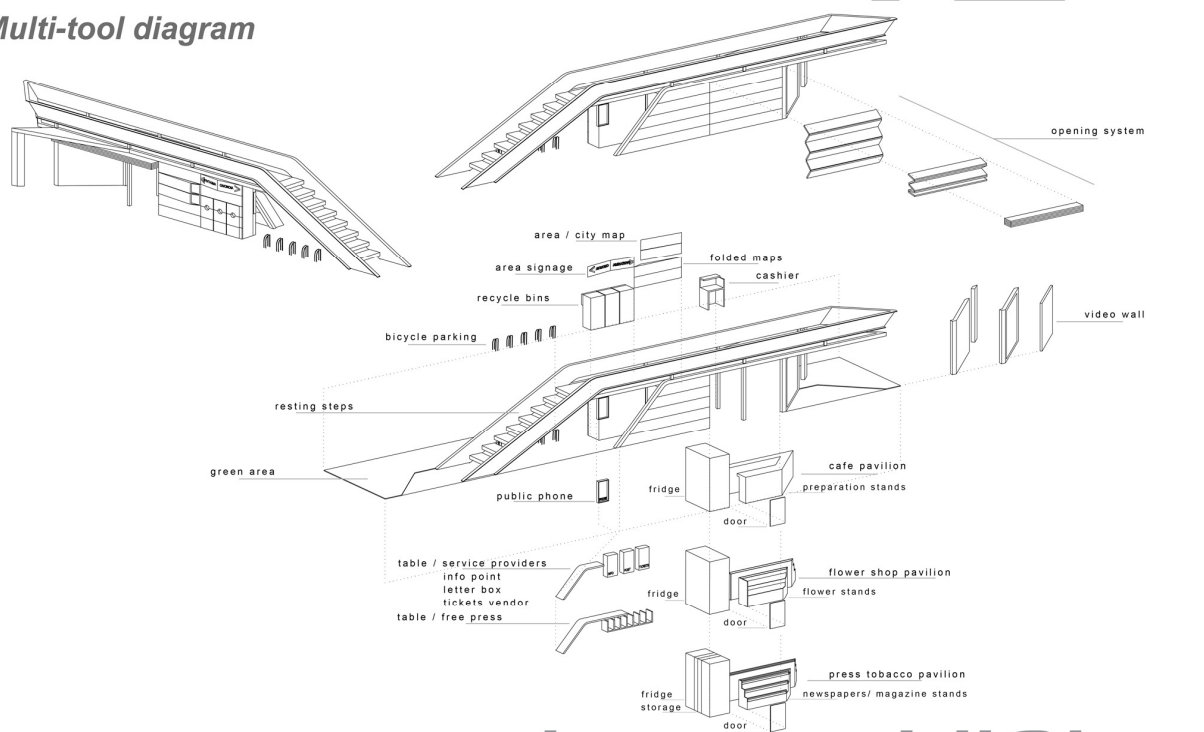
1/250



Section E-E'



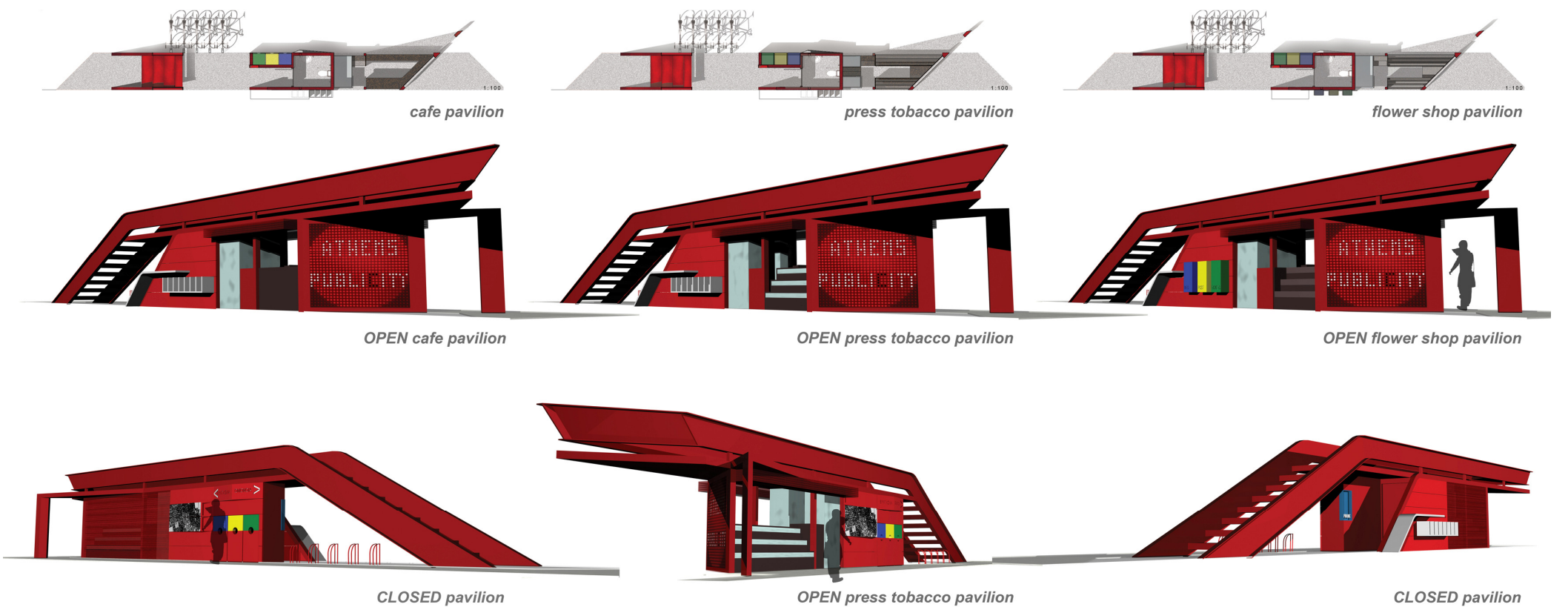
Multi-tool diagram



Toolbox diagram

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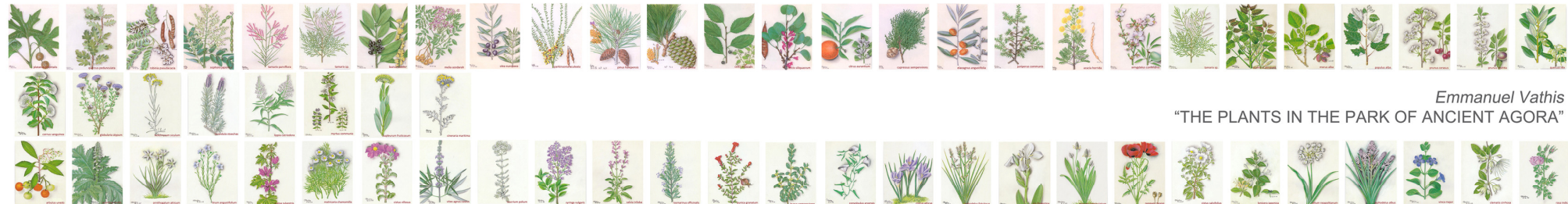
urban multi-tool



RETHINK ATHENS: TOWARDS A NEW CITY CENTER



AA00000000-9

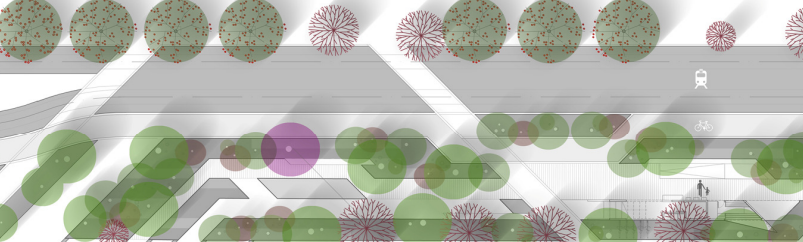
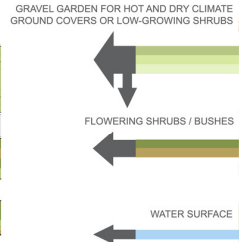
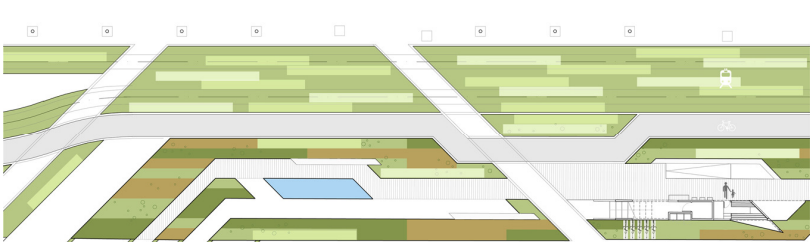
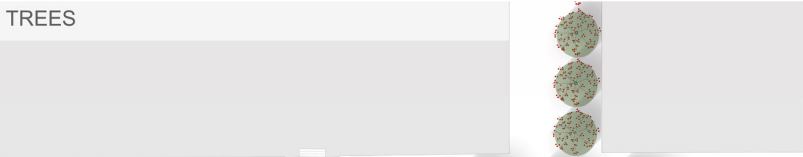


Emmanuel Vathis
"THE PLANTS IN THE PARK OF ANCIENT AGORA"

LOW VEGETATION



TREES



TREE ALLEY

STANDS OF TREES

EXISTING TREES
EXCEPTIONAL TREES

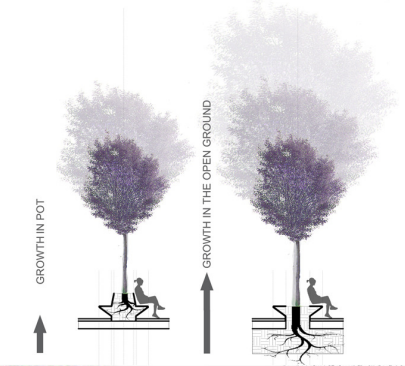
garden to garden
athens publiCity

GRAVEL GARDEN FOR HOT AND DRY CLIMATE - GROUND COVERS



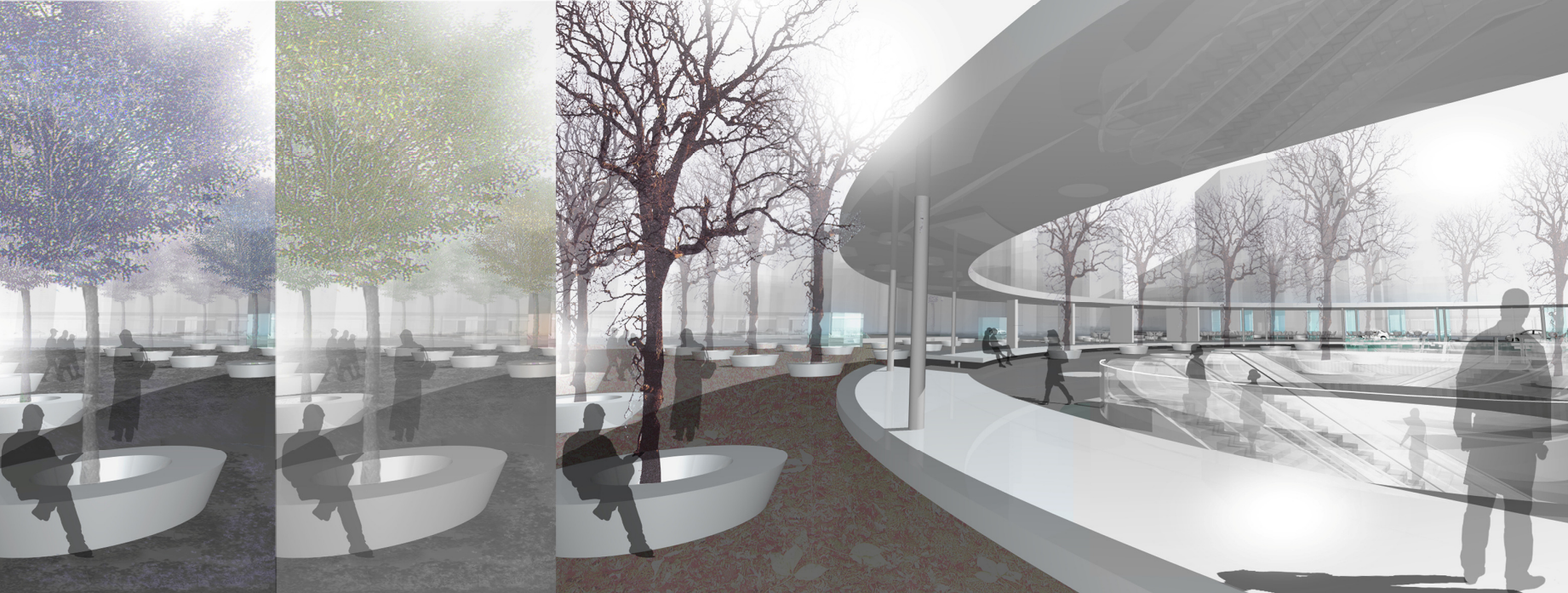
FLOWERING SHRUBS / BUSHES

STANDS OF TREES



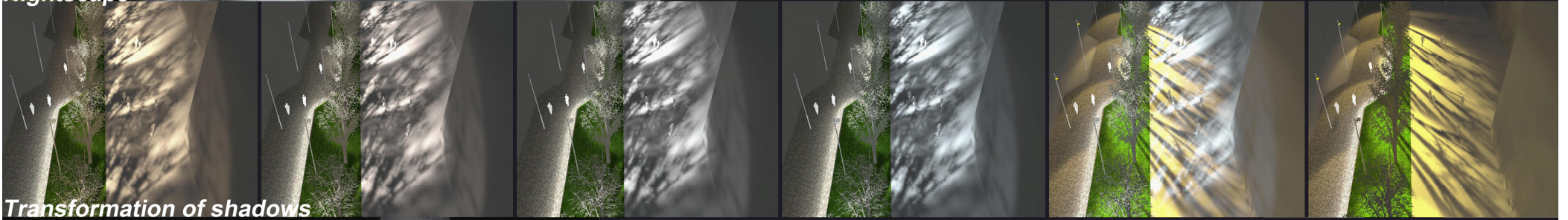
UNITY OF SPACE, OF SPIECES, OF COLORS

SEASONS

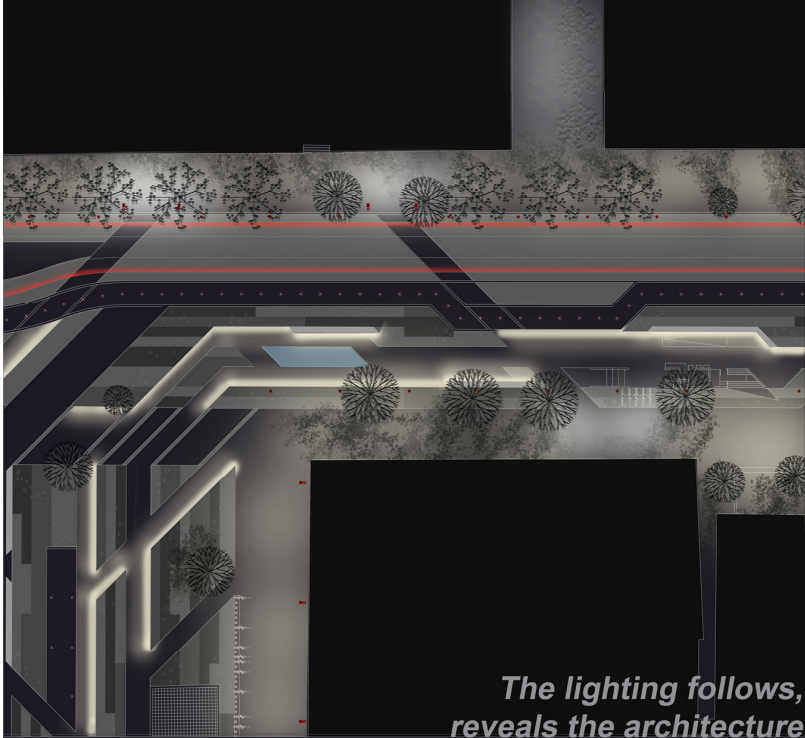




Nightscape



Transformation of shadows

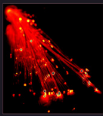


The lighting follows,
reveals the architecture

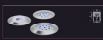


LED PROJECTOR ON POLE 4.0M
COLOUR TEMPERATURE CHANGING
PROPERTIES (WARMWHITE TO COLD
WHITE LIGHT EFFECT)

EFFECT OF SHADOWS ON PAVEMENT



ILLUMINATING FIBER OPTICS
(HIGHLIGHTING THE TRAM RAILS)



RECESSED LED POINTLIGHT
(HIGHLIGHTING THE BIKEROUTE)

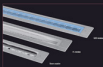


LED PROJECTOR ON POLE 4.0M
COLOUR TEMPERATURE CHANGING
PROPERTIES (WARMWHITE TO COLD
WHITE LIGHT EFFECT)

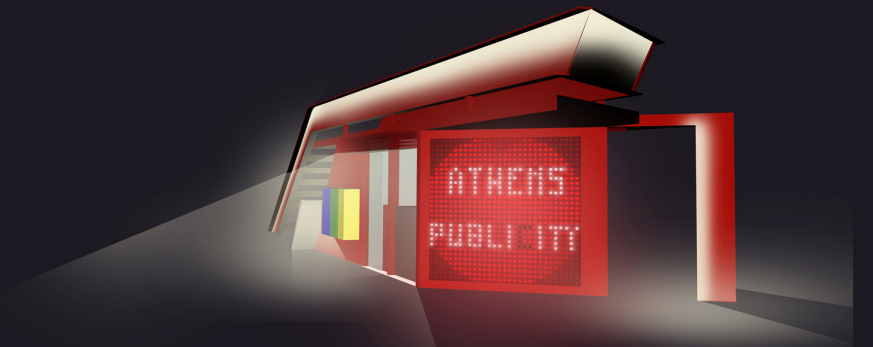
EFFECT OF SHADOWS ON PAVEMENT



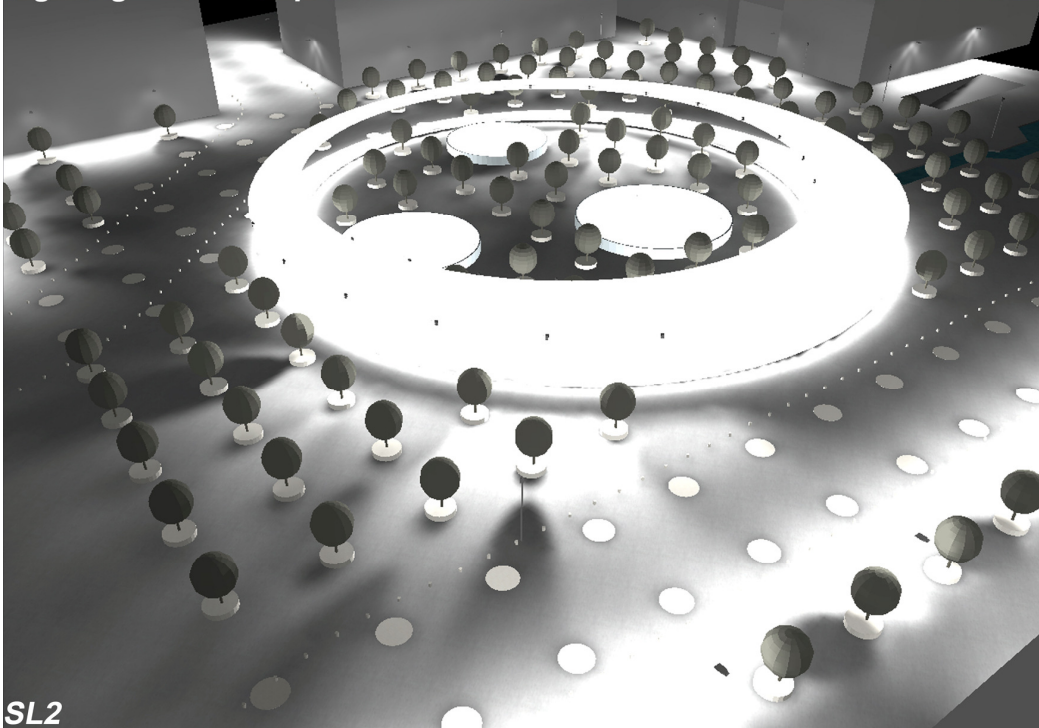
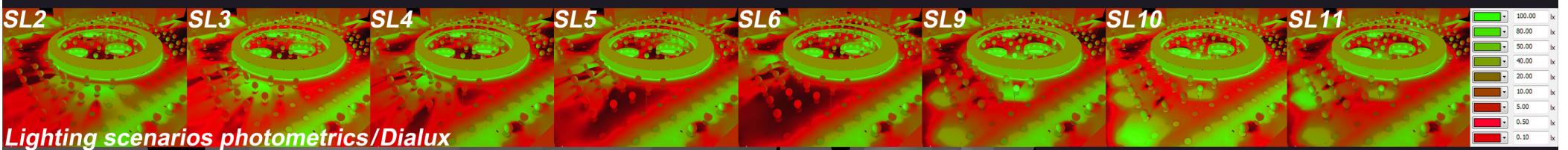
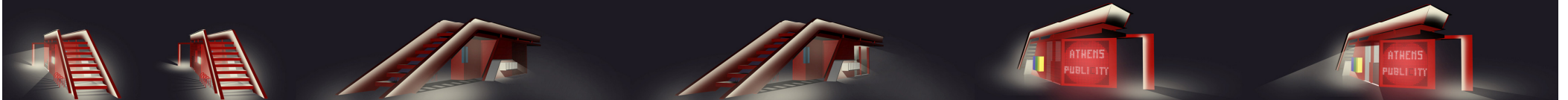
LED PROJECTOR ON POLE 5.0M
HIGHLIGHTING THE CROSS PATHWAY
CREATING THE COLOURED SHADOW
(EVENT LIGHTING EFFECT)



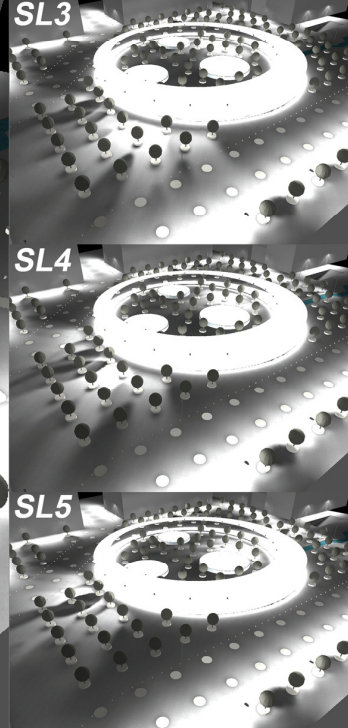
LINEAR LED/FLUORESCENT FITTING
RECESSED ON VERTICAL/HORIZONTAL
SURFACES



athens publiCity in praise of shadows



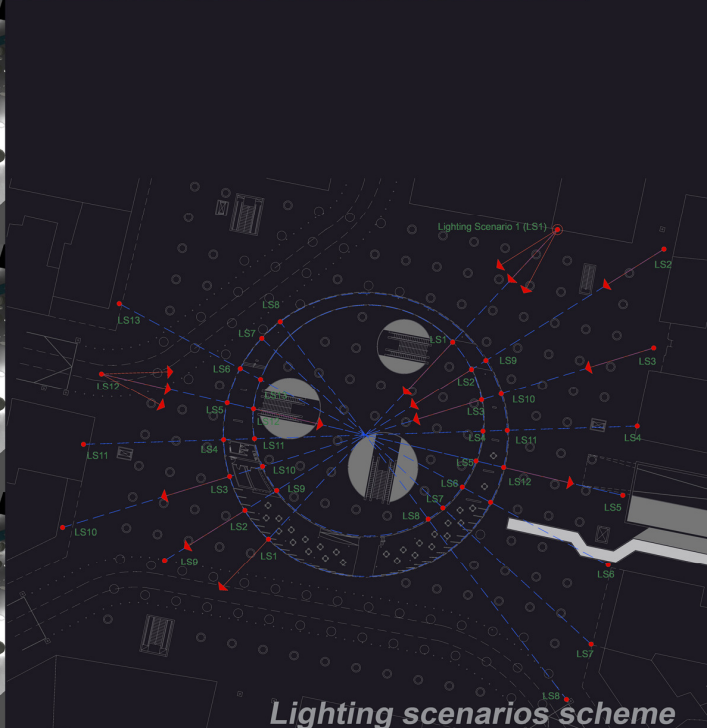
SL2



SL3

SL4

SL5



Lighting scenarios scheme