

Middlesex University

Institute for Work Based Learning

Doctorate in Professional Studies Programme

Module 5260

Learning Agreement

**Evidence of Achievement
(260 credits at level 5)**

AYIA NAPA

Brief history

The archaeological findings in the area of Ayia Napa show that between 7000-3700 A.C. there was a settlement during the Neolithic period. The settlement was on a hill near Cavo Greco. In Makronissos area after one kilometre along Nissi Avenue there is a cemetery from the Hellenistic period. Statues from terra cotta were also found. (From a seminar about Ayia Napa in 1993 given by Mr Nicolaou from the archaeological department of the Cyprus government)

The Monastery of Ayia Napa gave birth to the village of Ayia Napa as we know it today. It was built between 1489 and 1571, just 71 years before the occupation of the island by Ottomans. On the site of the monastery there is a cave where the local people had found an icon of Saint Mary. The icon is a treasure and is called Ayia Napa (The Saint of the forest).

A young Noble Venetian Lady from the Venetian fortified city of Famagusta heard about the legend and after having experienced an erotic disappointment had decided to built a church, cells for nuns a mill for flour and a mill for olives.

Outside the monastery there is a 600-700 years old tree, a Sycamore, from the Lusinian period. It is now protected from the Forestry Department. A similar tree was planted outside the Catholic church of Saint Nicolas in Famagusta that now is a Muslim mosque. The tree has a seven metre diameter and is twenty five metres high. Luis Palma di Cesnola (1832-1904), the first ambassador of the United States of America in his book 'Cyprus: Its Ancient Cities and Temples' describes the bad condition of the only remaining stone from the ancient settlement of Ayia Napa. This stone is called Ayia Mavri (Saint Black) and is situated next to municipality of Ayia Napa. In the same book, Cesnola describes some traditions of the village. The young girls used to come to that stone to smash their jewellery when their beloved one had betrayed them. They were doing the same action when they were prepared to get married. The old ladies used to burn candles to get the help of god for a disease they were suffering at the time.

Ayia Napa for the locals means clubbing, a lot of noise, drunk tourists, orgies on the boats etc.
Ayia Napa for the tourists means sun, beautiful beaches, fun, clubbing etc.

The locals are influenced by the local media that the only news they bring to the public about Ayia Napa is about murders, fight and organised crime. A collection of articles during the last year proves this fact. The Cypriots prefer the nearby Protaras area where more families go. The youth of Cyprus do not frequent the clubs of Ayia Napa. The clubbing area is destined for young foreigners and soldiers from the British military bases on the island.

The turn point for the development of Ayia Napa as a tourist attraction destination was the occupation of the nearby city of Famagusta with the endless golden beaches and the rich cultural life by the Turkish invading forces in 1974. After so many years the city remains until today a ghost city as it is closed for the public until the Turks get what they want for the rest of the occupied territories of the island that they have colonised after the invasion on the July 1974.

If one day the city of Famagusta opens its hotels and beaches to the tourists once again the role of Ayia Napa will change.

Before 1974 Ayia Napa was a peaceful village with its monastery, the port for fishing boats and one big hotel. The Nissi beach hotel.

The structure of the roads was still there since then but with not so much development. The historic centre was almost intact and many young Cypriots used to camp on the beach or on the camping area next to the cemetery at the end of Nissi Avenue that now does not exist. The metallic wind mills were spread all over the place and they were the symbol of Ayia Napa.

With the arrival of more tourists many old houses were demolished and tiny hotel apartments were built for the locals and for the tourists. More hotels were built. Many clubs were occupying the space along Tefkrou Anthia Street and gradually they moved to the present clubbing area behind the monastery.

Urbanisation.

The population of Ayia Napa until 2001 was 2700 people. In 1960 the population was just 835 people.

The urban planner Mr Demetriou from Greece who made an analysis of the situation in Ayia Napa back in 1993 in his report refers to the problems of Ayia Napa. One major problem was that the land used for the first hotels was an empty land without first being divided into urban plots. As a result, there is still empty land between the buildings.

The historic centre of Ayia Napa has lost its character and the form of the buildings is totally different one from each other.
A big part of it has given its space for the creation of the clubbing area.
The typical metallic wind mill was spread throughout the whole area of Ayia Napa.

The Master plan for Ayia Napa will promote the creation of cultural activities in the empty area near the port towards west. New routes towards the beach will connect Nissi Avenue with the sea. The elimination of the visual chaos is a political decision and the planners cannot do much to change the situation.

Some owners of restaurants and pubs have realised that more light and more signs does not mean more clients. I have noticed by observation that the restaurants with their own character attract more clients than the old style restaurants with many luminous signs outside the building.

The clubs stay open until 2.30 in the morning. The clubs are open only during summer period.

Points of interest.

Ayia Napa Monastery.

The pathway along the beach.

The square with the painters next to the monastery.

The port.

Cavo Greco and the caves

The pathway along the Aqueduct

Cycle along the cycling path.

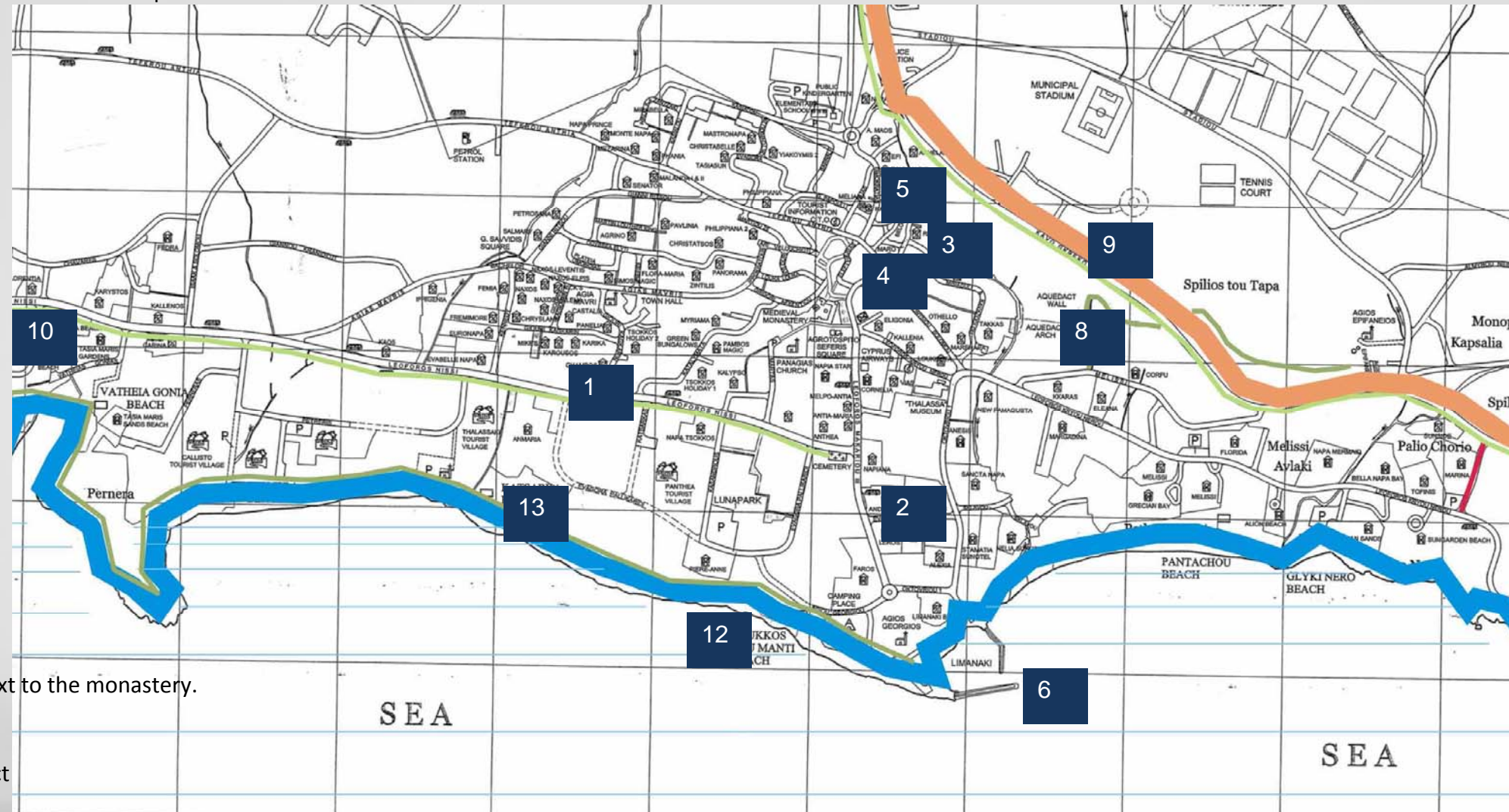
The forest of Ayios Nikandros

Makronissos Hellenistic cemetery.

The beach.

Winter

The life in Ayia Napa during winter is different than during the summer period. Some shops in Makariou Avenue are still open and the cafes near the Ayia Monastery are full of local young people. Aged tourists are still walking around the streets of the town. Some hotels make special arrangements for retired tourists so they can pass the winter in the warm Cyprus. The summer period starts on May and ends on September.



1. Nissi Avenue
2. Makariou Avenue
3. Ayia Napa Monastery.
4. The pathway along the beach.
5. The square with the painters next to the monastery.
6. The port.
7. Cavo Greco and the caves
8. The pathway along the Aqueduct
9. Cycle along the cycling path.
10. The forest of Ayios Nikandros
11. Makronissos Hellenistic cemetery.
12. The beach.
13. The pathway

The Ayia Napa Monastery.

The medieval monastery situated next to the historic centre of the town, along with the steel windmills is the trademark of Ayia Napa. Many tourists ignore its existence because it is hidden between the greenery of the park that surrounds it that once was part of the property of the monastery. At night they pass the square with the painters, just outside the building that used to contain the cells of the monks, and they head towards the clubbing area.



The park next to the monastery.



The big tree of 500 years old.
Next to it there is a big water deposit. The water that is coming from the aqueduct is stored.

A few months ago, after a request from the engineer of Ayia Napa, a more detailed proposal was prepared for this part of the town. Having always in mind the general strategy for the lighting, I tried to focus on the following aims:

The park In this case I tried to establish a root from the entrance under the trees from Makariou Avenue towards the gate of the monastery. This root used to be the root that the villagers and the pilgrims were following to visit the Greek Orthodox Church and the medieval fountain. Before their entrance they used to sit under the shade of the big tree where the Greek Nobel awarded poet used to sit during his visit to the island as an employee of the Greek embassy on the island. The back of the monastery leads to the square with the painters. After the almost darkness of the yard of the monastery the visitor will pass from the serenity to the noisy atmosphere of the town.

The trees of the park will not all are illuminated to the same level. Blue light will 'wash' the fountain at the centre of the square to give the sense of freshness and attract the visitors from Makariou avenue to visit the whole area.



The green area in front of the monastery
viewed from Makariou Avenue



The perimeter wall with the entrance that separates the monastery from the park.



Inside the wall The church is seen on the left. The fountain is a part of the aqueduct. Unfortunately the Greek Otrhodox bishop of the area did not accept to include the monastery within the walls in the strategy of the Master Light Plan. So I personally cannot guess how the lighting conditions will change.

The back gate leading to the square with the painters is barely visible behind the fountain.

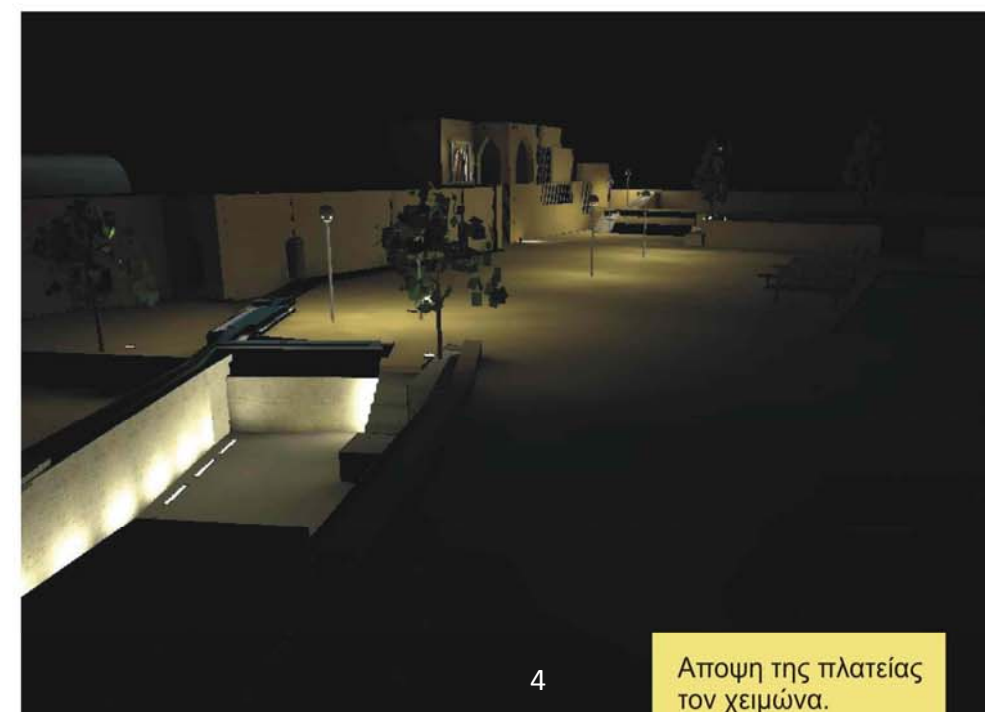
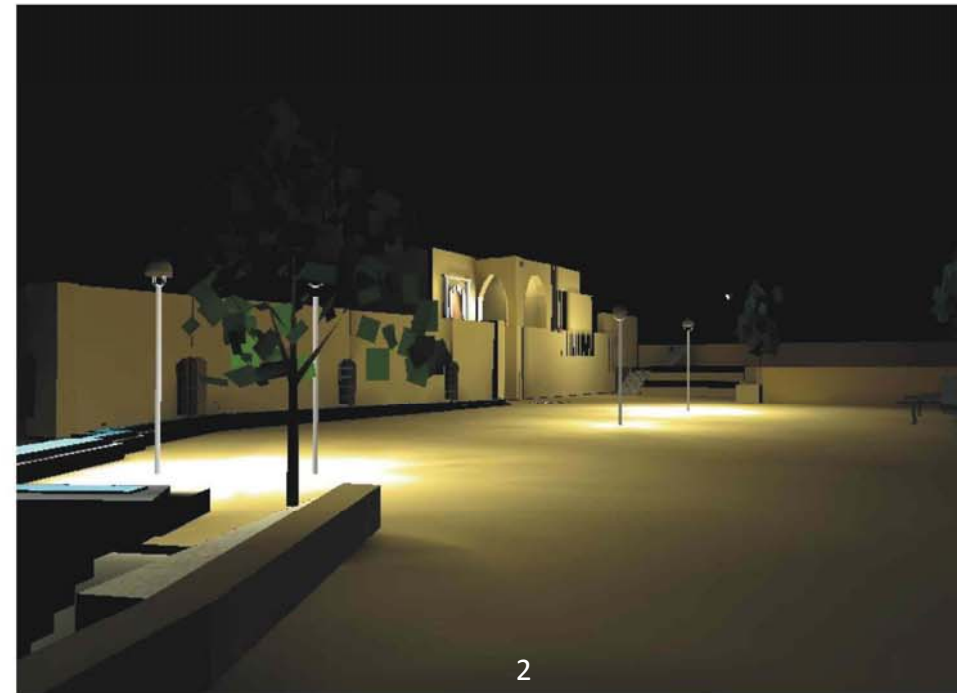
The square



The square is not illuminated sufficiently as a whole area. Plus there is a glare from a projector installed on the monastery. The aim of the proposal for the lighting of the square is to make this space become a square again and not just a space where the painters make a living and the tourists pass through towards the clubbing area nearby. Emphasis was given to illuminate the centre of the square and give enough light for the painters to work without using auxiliary equipment.

For the proposal, see the relative document.

The proposal

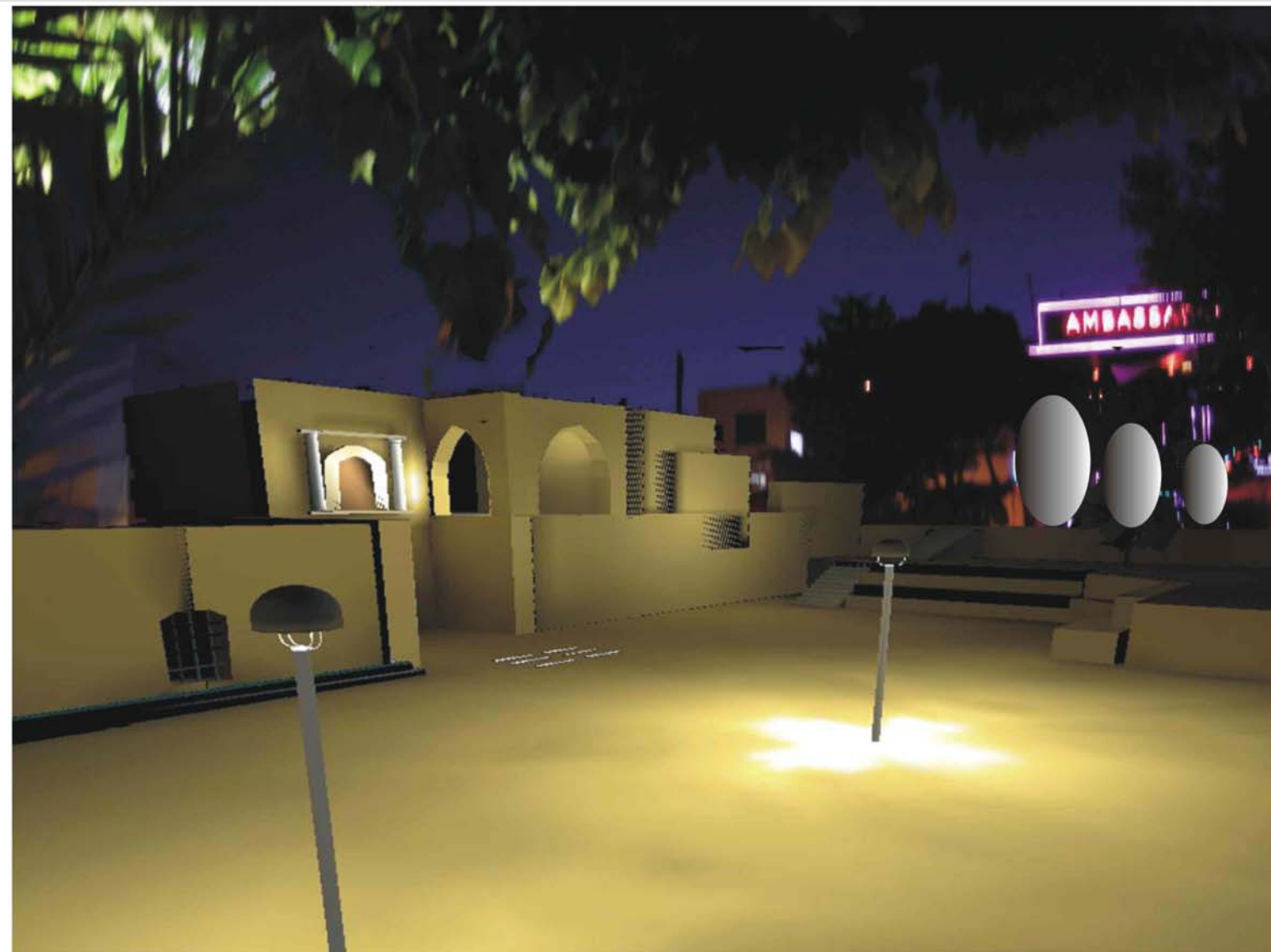


The scenes

1. The square in 3d.
2. The scene during the summer.
3. A closer view – summer scene.
4. A view with the antiquities- winter scene.



The presence of the clubbing area very near to the Monastery area is causing a visual disharmony on behalf of the clubs.
Three 'obelisks' of stone are proposed to block the view to the clubs. On their surface will be engraved the history of the monuments of this area.



The park next to the monastery



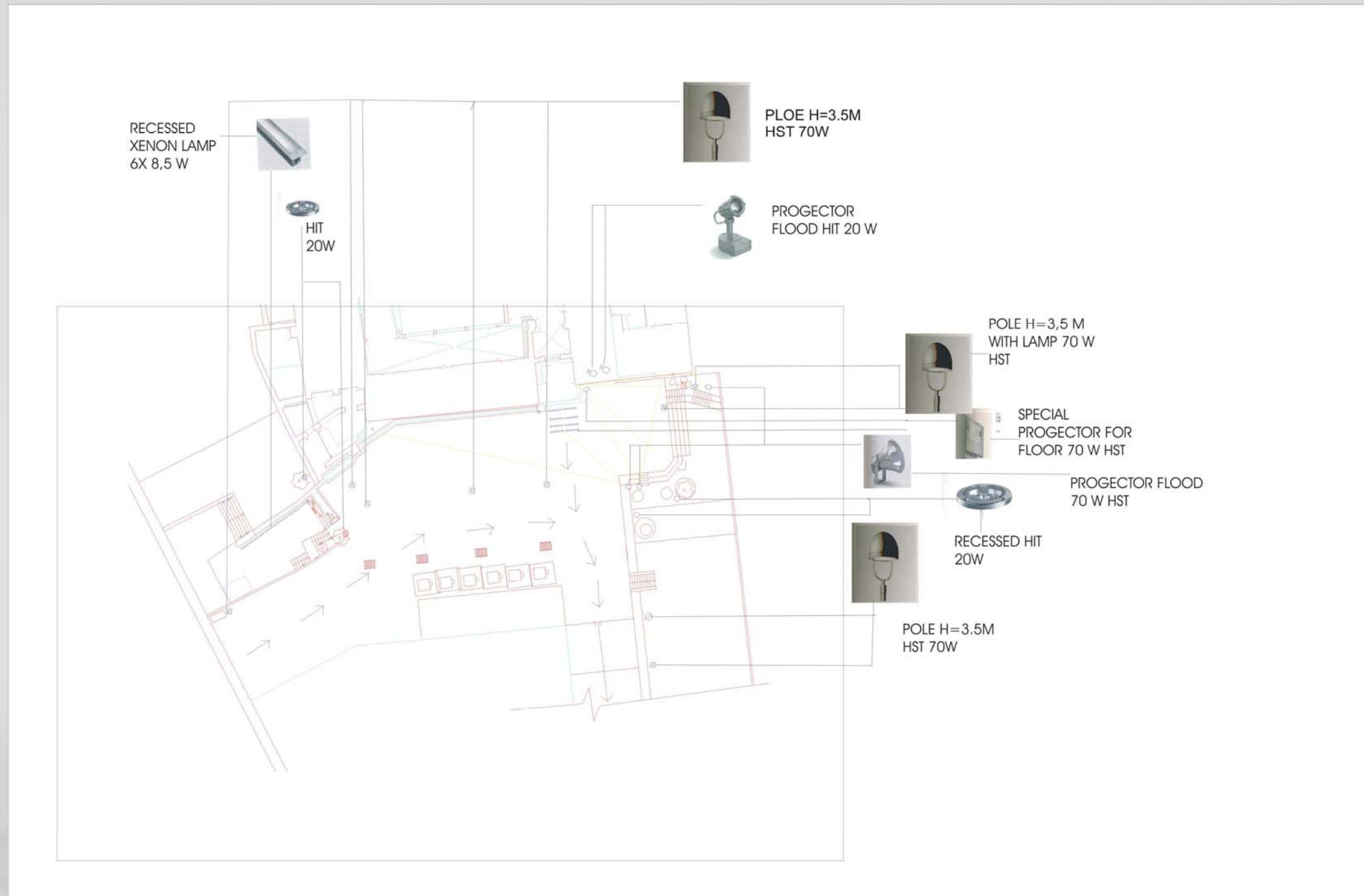
To establish a root there is a need to attract the eye. Blue colour is the best for the purpose. The existing fountain with the modern Orthodox church on the background and the trees on the entrance of the park will be lighted accordingly.





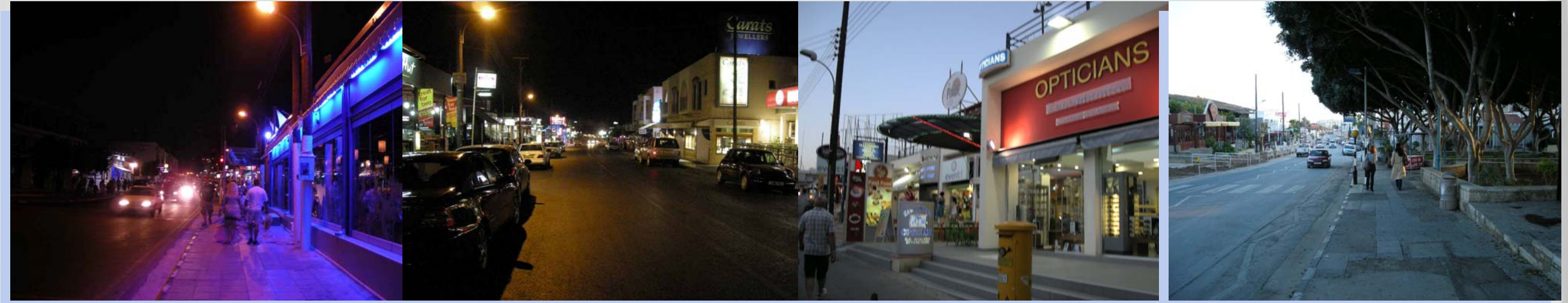
Light is information. The various historic periods Of the Monastery building are shown using different colour temperatures of light.





A plan showing the position and the types of the lighting fittings. This detailed plan was prepared after a request of the municipality of Ayia Napa.

Makariou Street



This street is very important street because it connects the historic centre of Ayia Napa with the port and the commercial strip, the Nissi Avenue. It has all the commercial activities and it passes in front of the monastery area that ends to the clubbing area. For this reason is a very busy place.

The Urban Planning Department has made some improvements that will cover the whole street.

The visual chaos created by many luminous signs is obvious. Half of the street is still illuminated with the sodium lamps with lighting fittings fixed on wooden poles.

The lighting of one restaurant is very pleasant to the tourists because the designer had used the blue light.

The proposal

The limitation of the numerous luminous signs must be the major concern of the project.

The area of the façade of the shop covered by signs should not exceed the ten percent of the total area.

The use of blue light in combination with the white light must be encouraged.

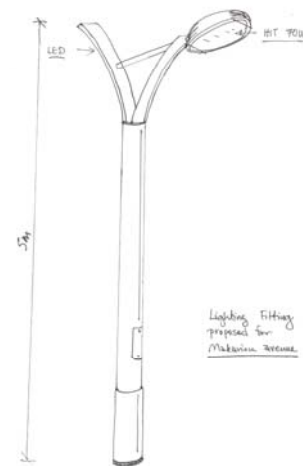
The use of big size projectors must be prohibited not only because they produce glare, but also because they do not match with the 'design' of the facades of the buildings.

The lighting fitting proposed for this street can be used also for Nissi avenue (The commercial strip).

The idea is to put a lighting fitting that resembles a tree. The led lamp is for pedestrians and the HIT lamp for the cars.

Where there is no pathway behind the fitting the led part can be removed.

THE FIRST ATTEMPTS





port

beach

pathway

Makariou Avenue

Nissi Avenue



Monastery

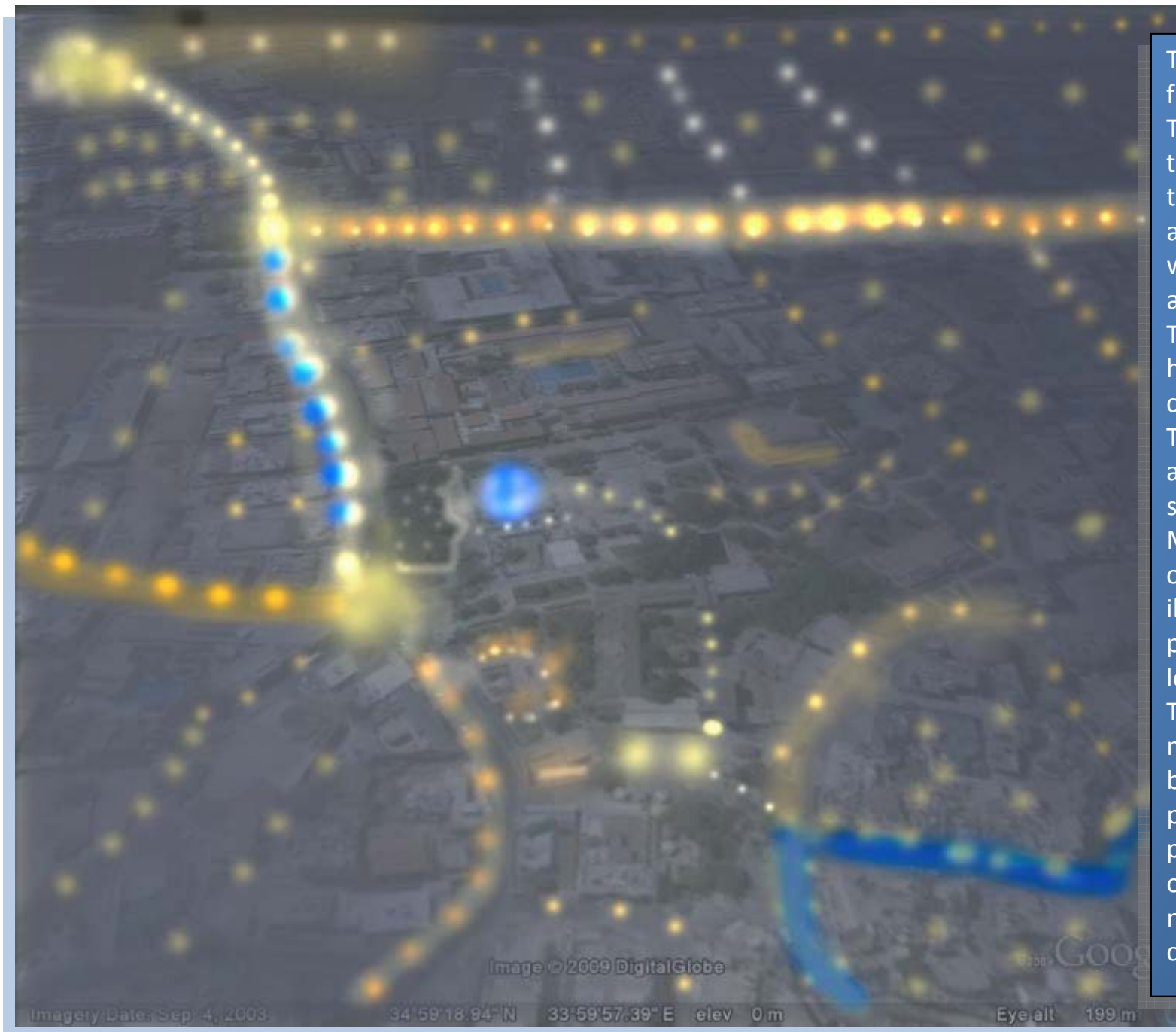
Clubbing area

Makariou Avenue is a very important because it connects the historic centre of Aya Napa with the Port and the commercial strip the Nissi Avenue. It has all the commercial activities and it passes in front of the monastery area that ends to the clubbing area. For this reason is a very busy place.

The Urban Planning Department has made some improvements that will cover the whole street. The proposal is based on the new design of the avenue.

The visual chaos created by many luminous signs is obvious. Half of the street is are still illuminated with the sodium lamps with lighting fittings fixed on wooden poles.

The lighting of one restaurant is very pleasant to the tourists because the designer had used the blue light even a bit excessively in my opinion.



The proposed nightscape of the town is seen from a bird eye view. This demonstrates the connection between the parts. There are islands with shadow as the park near the monastery, the pathway along the beach and 'islands of fun' bathed with blue light as the clubbing area that from above looks like a river. The nodes are visible from far away as they have more light than the streets which are connected by them. The residential areas mixed with hotel apartments and private houses remain in the semi shadow for safety reasons. Makariou Avenue is crossed by the cool light of the used lighting fittings that will illuminate the root towards the sea and the proposed 'cultural area' proposed by the local planning department. The 'blue island' of light next to the monastery is the water basin that will be bathed with blue light so it can attract the people's attention to visit the park and proceed to the old tree next to the entrance of the monastery. This is a new root giving a new life to the square adjacent to the clubbing area.

MAKARIOU AVENUE - EAST

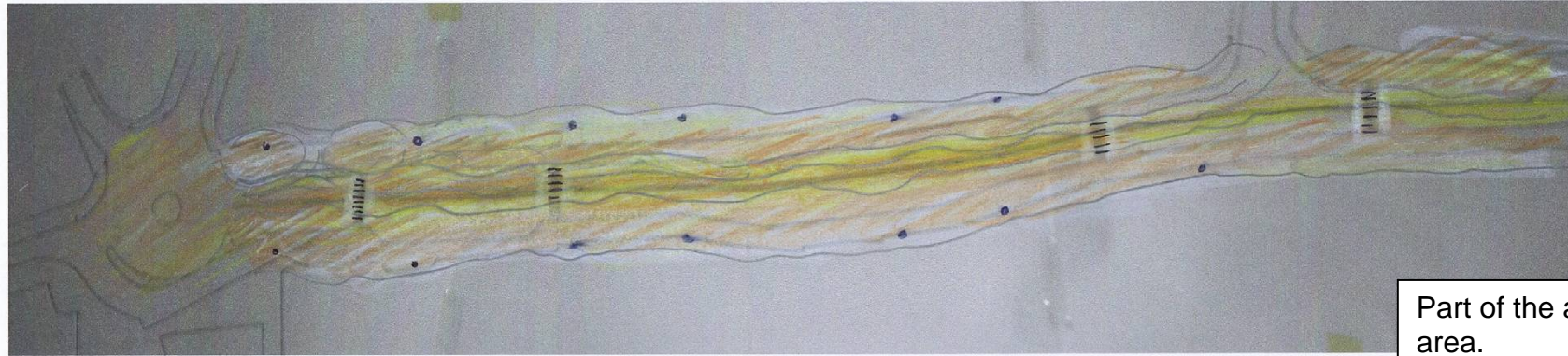


PROPOSAL

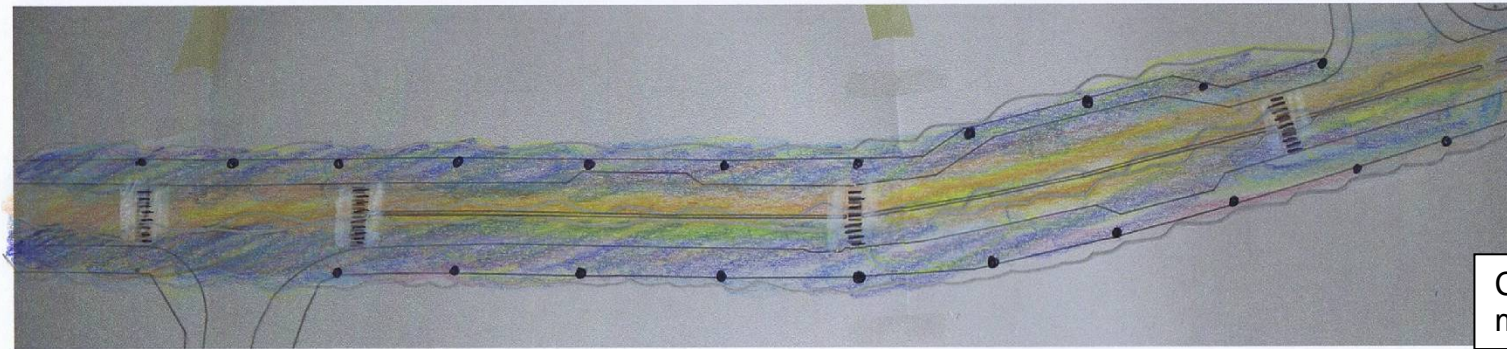
MAKARIOU AVENUE - WEST



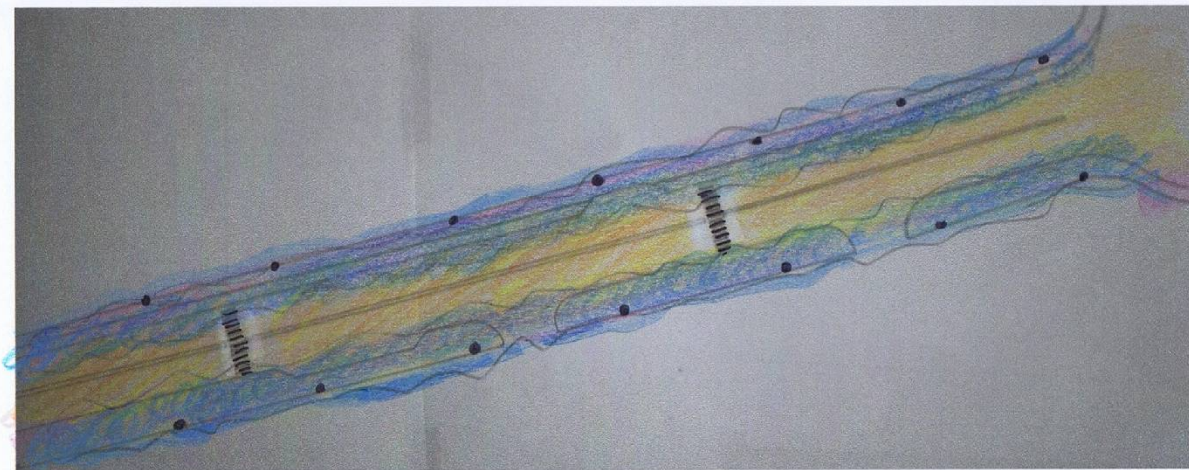
PROPOSAL



Part of the avenue that starts from the round about of the monastery area.



Continuation of the avenue with the mixing colour thst produces magenta.



Part of the avenue that ends at the round about of the port area.

- snow (not finished)
- left side (proposed)
- right side (proposed)

The limitation of the numerous luminous signs must be the major concern of the project
The area of the façade of the shop covered by signs should not exceed the ten percent of the total area.
The use of blue light in combination with the white light must be encourage
The use of big size projectors must be prohibited not only because they produce glare,
and also because they do not match with the other elements of the buildings.

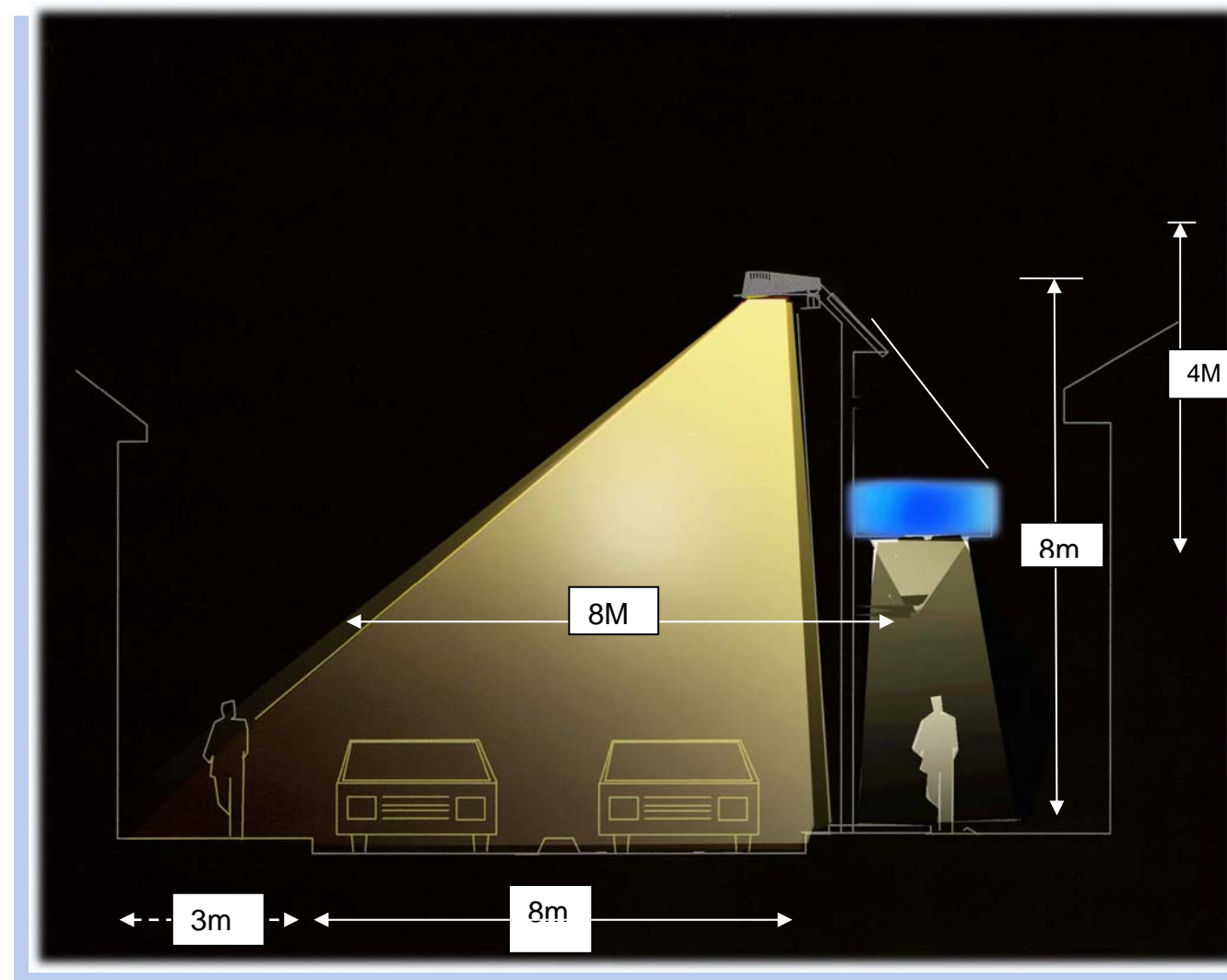
The lighting fitting proposed for this street can be used also for Nissi Avenue (The commercial strip).
The idea is to put a lighting fitting that resembles a tree. The led lamp is for pedestrians and the HIT lamp for the cars.
Where there is no pathway behind the fitting the led part can be removed.



The lighting fitting

This lighting fitting is fitted on an 8 m high pole made of die cast aluminum and painted with special anticorrosion paint for areas near the sea. In four meters height a rounded shape luminary specially made of blue diffusing material is fixed containing a ring shaped fluorescent lamp of 60 W of 406 mm diameter. The solar power is produced by a panel of 85W. The dimension of the panel is 1200 mm X 500 mm having photovoltaic cells which can produce 0.5 Kwh of electricity. The panel has an inclination of 30 degrees. The battery is situated in the ground. If the panel is not directed towards south there will be a loss of 15 per cent of energy.

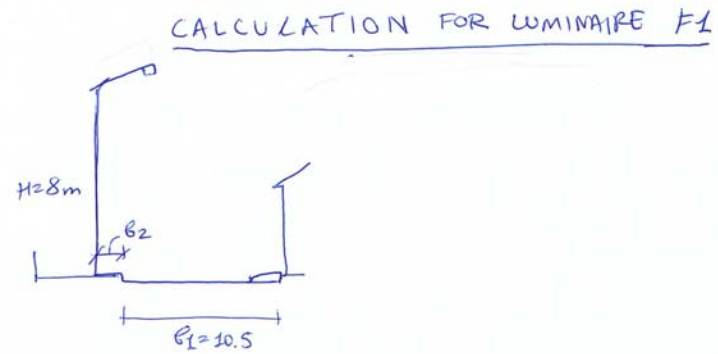
The lighting fixture on the top is a ready made luminary from the Italian firm iGuzzini. It is called 'Archilede' and is fitted with a 59X1W cool white LED lamp. The street optics allows a big distance between the poles and the twilight photocell saves a lot of energy.



The lighting strategy imposes a row of special luminaries of H=8M on one side of the road. The aim is to put the smaller number of poles and create diversity. One part of the street that leads to the port will be illuminated with the special fitting that will have the blue diffuser indicating that this direction leads to the sea. The Uniformity of the illuminance of the street according to the European recommendations CIE 136-2000 must be average 10 lx and minimum 3lx. The classification of the street is P2. (Heavy night time use by pedestrians or pedal cyclists). The semi cylindrical illuminance is 2lx minimum.



Calculations for the proposed poles that were substituted by the newly installed poles.



$$b_2 = 0.40 \text{ m}$$

$$b_1 = 10.5 \text{ m}$$

$$h = 8 \text{ m}$$

$$\frac{b_1}{h} = \frac{10.5}{8} = 1.31 \quad K = 0.63 \text{ (from graphic)}$$

$$\Phi = \frac{E \cdot S}{K \cdot M} = \frac{10 \text{ lx} \cdot 230}{0.62 \cdot 0.85} = \frac{2300}{0.52} = 4423 \text{ lm (needed)}$$

$$S = l \cdot b = 23 \text{ m} \cdot 10 \text{ m} = 230 \text{ m}^2$$

iGuzzini

Archilede 59 x 1W cool white 5500K with twilight photocell - street optic BD07 Product data sheet

Last Update 30/10/2009

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By product name

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Catalogues

Product **Accessories**

Archilede 59 x 1W cool white 5500K with twilight photocell - street optic BD07

General

Order code	BD07
Designer name	ENEL, Sole by iGuzzini

Technical description

Luminaire for external lighting with street optic with downtight emission for power LEDs. Pole-top or lateral installation on tapered columns. Optical assembly, frame and cylinder made of die-cast aluminium, subjected to phosphochromate treatment with double primer, passivation at 120° C, grey liquid paint RAL 9007, baking at 150° C, possible inclination, with graduated scale, with respect to the road surface by $\alpha = +20^\circ$ in pole-top installation and $\pm 15^\circ - 20^\circ$ with respect to the road surface in lateral installation. Frame fixed to the body with captive screws, 50 Shore black silicone gasket between body and frame to guarantee high IP, PMMA diffuser with 2mm thickness fixed to the body with silicone. Complete with circuit with 59 monochromatic power LEDs with Cool White (5500K) colour temperature, optics with plastic lens. Control gear connected with fast-coupling connectors, fixed to the body with 2 screws. Driver with automatic control system of internal temperature and with 4 predefined operation profiles (100% cycle by default) selected with microswitches, possibility of customised cycles with dedicated software transferred with USB interface (on demand). Selv 220-240Vac 50/60Hz electronic ballast. No light flow is emitted upwards by Archilede in horizontal position (in compliance with the strictest regulations against

Product recommendations: (click to view) 5 similar products

Instruction Print photometric info Download

Object : Makariou
 Installation :
 Project number : 1205
 Date : 01.11.2009



2 Road

2.3 Calculation results, Road

2.3.1 Table, Road (E)

[m]	2.8	2.5	2.4	2.4	2.1	2.2	2.5	3.2	3.4	3
9.29	3.8	4	4.7	4.6	4.1	4.6	6.1	6.5	6.2	4.4
7.86	5	8.5	10.8	9.5	9.2	11.3	12	11.6	7.9	4.5
6.43	5.5	12.1	15.4	16.4	16	18.5	17.7	12.7	7.5	3.9
5.00	4.6	11.8	11	13.4	15.9	16.3	14.8	8.8	4.7	2.6
3.57	5.2	11.4	11.1	13.1	10.5	8.8	7.2	4.5	2.5	1.5
2.14	6.1	8.2	9	6.6	4.9	4.1	3.5	2.4	1.5	(1)
0.71	1.15	3.45	5.75	8.05	10.35	12.65	14.95	17.25	19.55	21.85
	Illuminance [lx]									

Height of the reference plane : 1.50 m
 Average illuminance Eav : 7.4 lx
 Minimum illuminance Emin : 1 lx
 Maximum illuminance Emax : 18.5 lx
 Uniformity g1 min/average : 1 : 7.7 (0.1)
 Uniformity g2 min/max : 1 : 19.2 (0.1)

-please put your own address here-

Object : Makariou
 Installation :
 Project number : 1205
 Date : 01.11.2009



1 Luminaire data

1.2 iGuzzini illuminazione S.p.A/Lab/Ver. 10.07, Archilede: BD07 (BD070000)

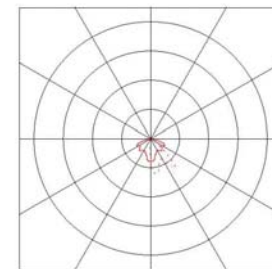
1.2.1 Data sheet

Manufacturer: iGuzzini illuminazione S.p.A/Lab/Ver. 10.07

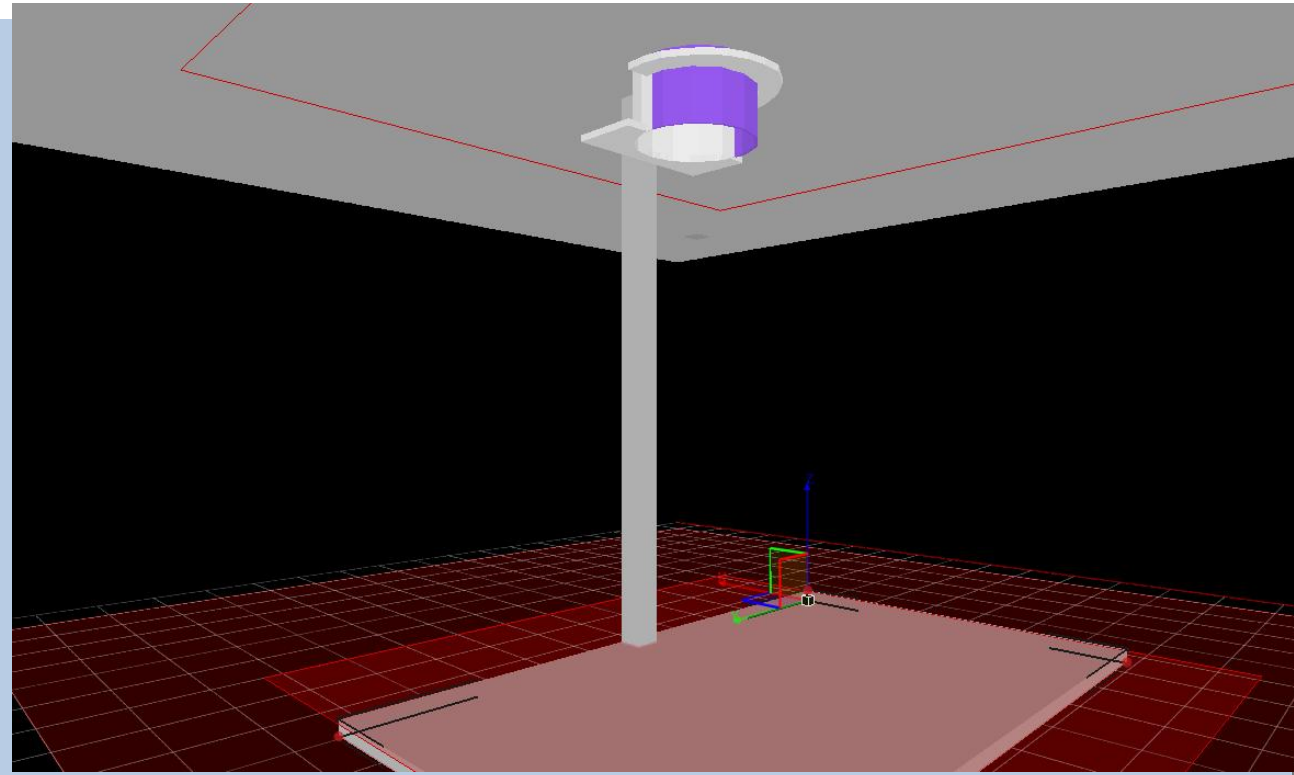
BD070000 Archilede: BD07

Luminaire data
 Luminaire efficiency : 100% (A30)
 ↓ 100.0% ↑ 0.0%
 CIE Flux Codes : 38 75 98 100 100
 Control gear :
 System power : 72 W
 Length : 684 mm
 Width : 448 mm
 Height : 216 mm

Equipped with
 Number of : 1
 Designation : LED / 59W
 Power : 0 W
 Colour :
 Luminous flux : 4376 lm



-please put your own address here-



THE PROPOSED LIGHTING FITTING THAT WILL SUPPLEMENT THE EXISTING POLES.

The special fitting is mounted on the pole four meters from the pavement. It has a two colour reflector which adds a value to its character. The blue light will be visible from far away. The 20 W HIT floodlight projector that shoots light from 50 cm distance illuminates the fitting and also reflects the light to the pavement.



Object : Makariou
 Installation : Ayia Napa
 Project number : Round
 Date : 29.11.2009



1 Luminaire data

1.1 iGuzzini illuminazione S.p.A/Lab/Ver. 09/03, iTeka: B788+B997.65+L160 - Floo... (B7880C

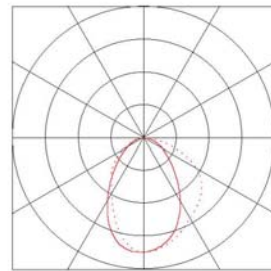
1.1.1 Data sheet

Manufacturer: iGuzzini illuminazione S.p.A/Lab/Ver. 09/03

B7880000 iTeka: B788+B997.65+L160 - Floodlight with electronic control gear (AT) - C...

Luminaire data
 Luminaire efficiency : 70% (A50)
 ↓ 100.0% ↑ 0.0%
 CIE Flux Codes : 56 85 98 100 70
 Control gear :
 System power : 21 W
 Length : 149 mm
 Width : 143 mm

Equipped with
 Number of : 1
 Designation : CDM-tm PGJ5
 20W
 Power : 0 W
 Colour : RGB 0,97 1,00
 0,42
 Luminous flux : 1650 lm



-please put your own address here-

Object : Makariou
 Installation : Ayia Napa
 Project number : Round
 Date : 29.11.2009



2 Room 1

2.3 Calculation results, Room 1

2.3.1 Table, Reference plane 1 (E)

[m]	1,39	1,67	1,93	2,23	2,5	2,74	2,91	3	3,04	2,98	2,9	2,68	2,39	2,09	1,82	1,45	1,1	0,88	0,66	0,45
9	1,65	1,99	2,33	2,68	3	3,33	3,58	3,72	3,76	3,71	3,53	3,25	2,91	2,55	2,16	1,71	1,33	1	0,77	0,47
	1,91	2,3	2,71	1,24	1,87	1,91	1,95	2,48	1,82	1,61	2,53	3,91	3,43	2,97	2,45	1,93	1,5	1,09	0,81	0,58
8	2,14	2,62	3,14								2,58	4,52	4	3,34	2,64	2,01	1,54	1,24	0,83	0,49
	2,39	2,94	3,53								2,02	5,1	4,41	3,47	2,63	2,03	1,37	1,03	0,79	0,52
7	2,58	3,2	3,83								2,43	5,42	4,25	3,04	2,31	1,75	1,25	0,96	0,75	0,53
	2,7	3,38	4,08								3,2	4,57	3,13	2,38	1,85	1,43	1,14	0,95	0,76	0,56
6	2,82	3,5	4,24								1,64	2,19	2	1,92	1,5	1,37	1,05	0,85	0,68	0,54
	2,81	3,52	4,23								1,59	3,07	2,62	2,36	1,83	1,66	1,15	0,94	0,76	0,55
5	2,75	3,42	4,12								2,42	5,43	4,06	3,16	2,46	1,9	1,46	1,18	0,95	0,68
	2,58	3,17	3,88								2,73	5,62	4,74	3,51	2,82	2,04	1,59	1,28	0,96	0,67
	2,34	2,92	3,53								2,75	5,2	4,54	3,72	2,88	2,17	1,73	1,29	0,95	0,61
4	2,1	2,56	3,12								2,24	4,56	4,02	3,37	2,71	2,12	1,69	1,27	0,9	0,55
	1,86	2,24	2,66								1,86	3,89	3,41	2,95	2,36	1,94	1,53	1,2	0,86	0,61
3	1,54	1,87	2,2	1,66	2	2,23	2,8	2,43	2,76	2,85	3,42	3,16	2,79	2,42	2,09	1,66	1,31	0,93	0,75	0,51
	1,3	1,55	1,83	2,09	2,36	2,69	2,86	2,98	2,98	2,94	2,81	2,56	2,27	1,97	1,64	1,4	1,01	0,85	0,65	0,46
2	1,05	1,24	1,49	1,69	1,89	2,08	2,22	2,27	2,29	2,27	2,2	1,98	1,75	1,55	1,37	1,09	0,86	0,7	0,52	0,39
	0,86	1,01	1,15	1,32	1,48	1,64	1,72	1,77	1,79	1,76	1,66	1,54	1,41	1,24	1,12	0,84	0,71	0,59	0,43	0,33
1	0,69	0,78	0,91	1,04	1,16	1,23	1,32	1,33	1,34	1,31	1,29	1,21	1,05	0,94	0,78	0,68	0,56	0,4	0,33	0,26
	0,52	0,63	0,7	0,79	0,89	0,97	1	1,02	1,03	1,02	0,95	0,8	0,74	0,69	0,63	0,53	0,43	0,32	0,27	(0,22)
	1	2	3	4	5	6	7	8	9	[m]										

Height of the reference plane : 0.00 m
 Average illuminance Eav : 1.98 lx
 Minimum illuminance Emin : 0.22 lx
 Maximum illuminance Emax : 5.62 lx
 Uniformity g1 Emin/Eav : 1 : 8.99 (0.11)
 Uniformity g2 Emin/Emax : 1 : 25.51 (0.04)

-please put your own address here-



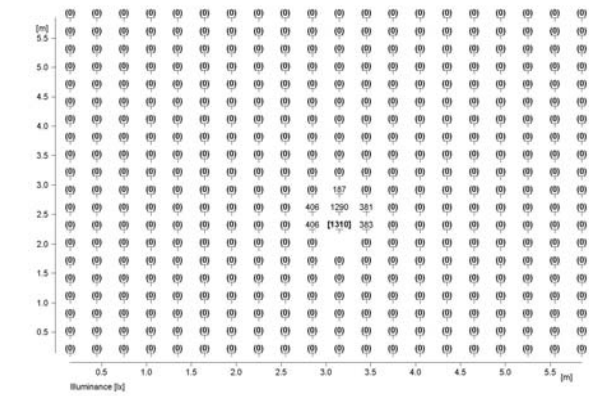
RENDERING OF THE SPECIAL LIGHTING FITTING FOR MAKARIOU AVENUE

Object : Makariou
 Installation : Ayia Napa
 Project number : Round
 Date : 29.11.2009



2.3 Calculation results, Room 1

2.3.3 Table, Measuring area (virtual) 2 (E)



Height of the reference plane	: 4.20 m
Average illuminance	Eav : 11 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 1310 lx
Uniformity g1	Emin/Eav : ---
Uniformity g2	Emin/Emax : ---

CALCULATION OF THE LIGHT EMITTED UPWARDS. It is obvious that there not much dispersion of light towards the sky.

THE COMPROMISE. THE SCENARIO DURING THE DAYLIGHT.



**REVISED
PROPOSAL FOR
MAKARIOU
AVENUE .**

AFTER THE INTERVENTION OF THE URBAN PLANNING DEPARTMENT AND THE ELECTROMECHANICAL DEPARTMENT NEW POSTS HIGH 8M WITH NEW LIGHTING FITTINGS HAVE BEEN POSITIONED ON BOTH SIDES OF THE AVENUE. THE PROPOSED LUMINARIES IN BLUE ESTABLISH A VISUAL HIERARCHY AND GIVE A CHARACTER TO THE PLACE.

THE EVENING SCENARIO



Nissi Avenue

This is the commercial strip of Ayia Napa of 2.5 km long. The name of the strip derives from the tiny island (Nissi in Greek) next to the beach nearby. It is also used as a service road so this street has two different functions that don't match together. This fact makes the street busier with traffic than it should be. The lighting of the strip is appropriate for service road than of a commercial street. High poles with diffused light of 150 W placed every 35m are illuminating the road but they leave the cycling path almost in the dark.

The visual chaos exists also here. The shops and almost half of the restaurants and pubs are responsible for this situation. The other half of the restaurants got the message and they have focused their concept to simple and cleverer design. It is evident that the premises with an identity attract more clients. The owners who still use the old formula, 'the more signs I put the more clients I attract' have failed to fulfil their expectations.



Almost all the shop owners use fluorescent light and 300 W HIT flood light projectors to illuminate the merchandise and the façade. The pavement just outside the buildings receives almost 300 lx on the pavement. When the pedestrian passes the shop the light intensity drops dramatically to 30lx.



Come. Come, Come



Blue light

Come. Come, Come.

Blue light



The sequence. The disharmony of light and darkness.

Nissi avenue- proposal

The lighting strategy for the strip must satisfy the needs of the road as a service road and commercial road and the needs of the cyclists as well as the pedestrians.

The glare coming from the facades of some shops must be eliminated imposing total ban of the projectors more than 35 W. Strong projectors cause lighting pollution because they reflect light on vertical surfaces. The luxes that arrive on the pavement outside a shop emitted from a light source installed on the façade of the building must be reduced to a maximum of 50 lx. The recommendations for the establishment of a norm regulating the light intensities outside the shops must be in lx only because the municipality will be more probably equipped with luxmeter than an expensive luminance meter.

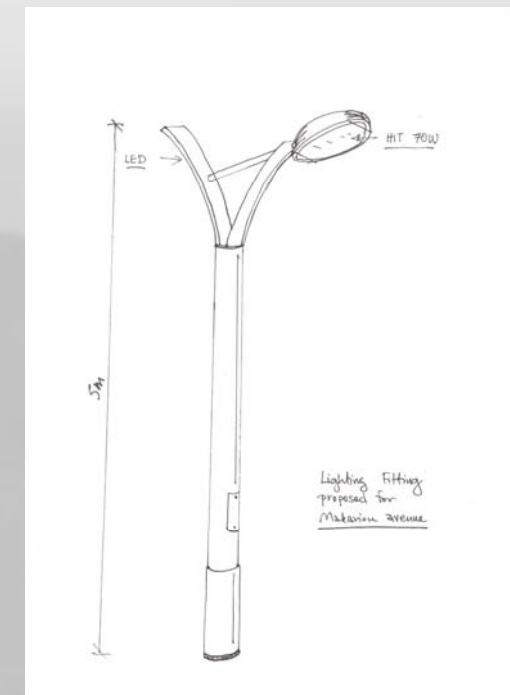
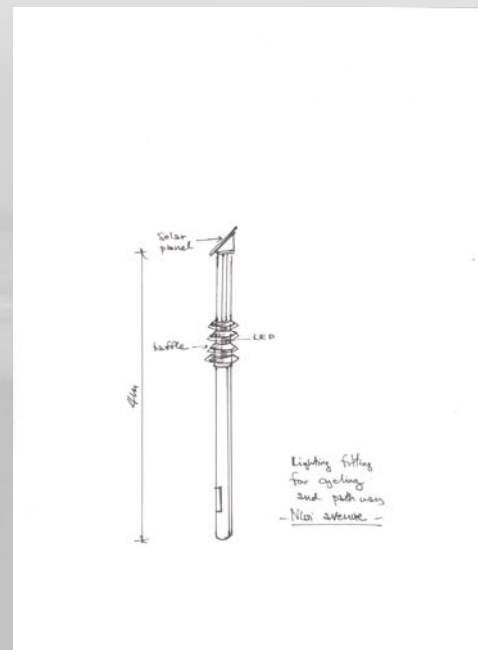
The same restrictions with luminous signs must be imposed here like in the case of Makariou Avenue. No more than one sign describing the same content must be exposed outside of the premises. Fluorescent or led lights will be allowed to be used for the illumination of the signs that must have a certain size. No more than the ten percent of the external wall in the perimeter of the plot for example.

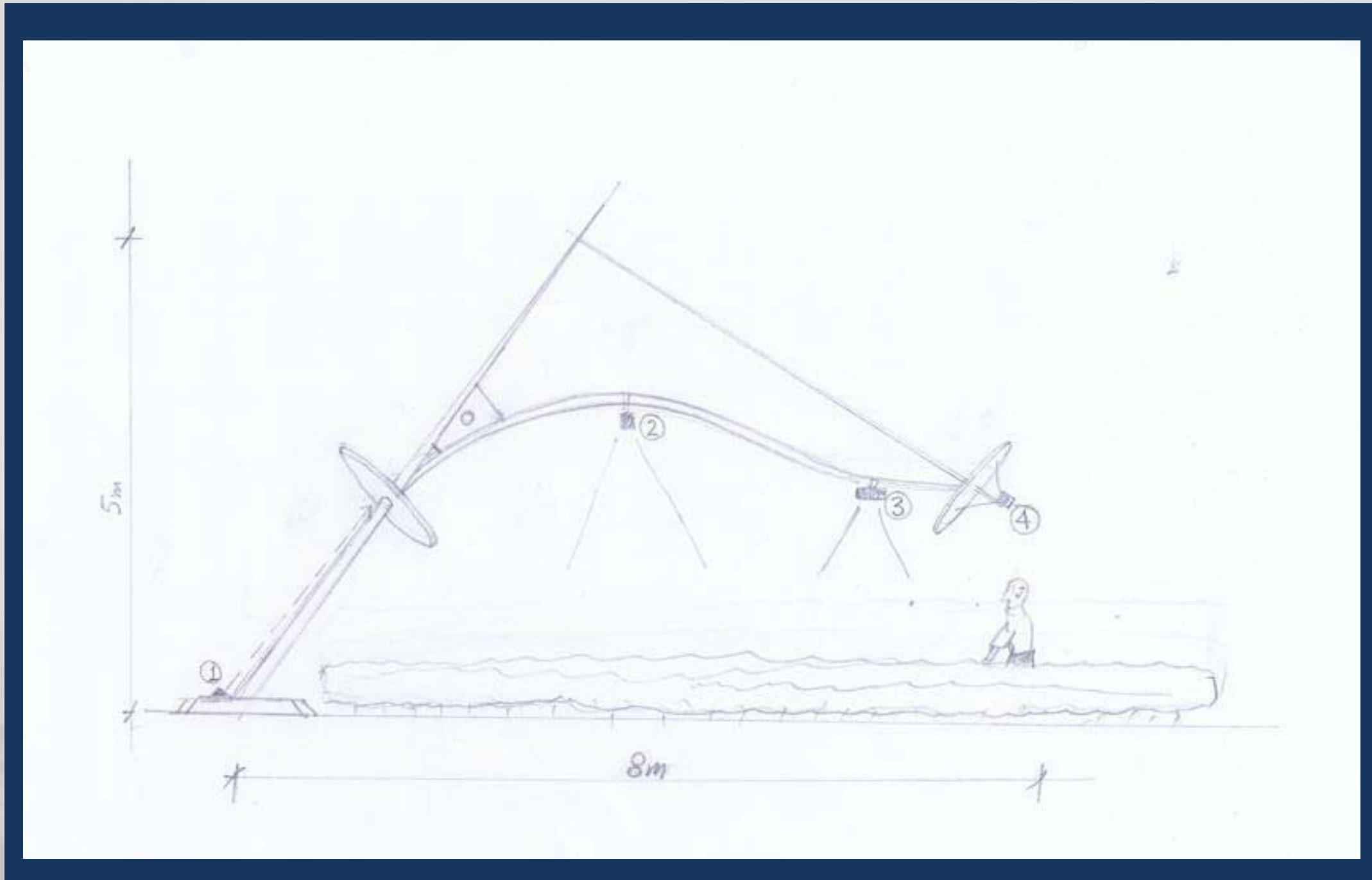
Lighting fittings

The light fitting proposed for the cycling pathway will use led stripes and will take power from the sun using solar panel. Baffles will prevent glare because the led light is very strong. Every 250 m the light of the led will vary from cool to warm. By just looking at the different temperatures of the leds, the cyclist and the pedestrian will know that he passed another 250m of the 2.5 km of the strip.

The lighting fitting proposed for the road is the same for the Makariou Avenue.

The first attempts

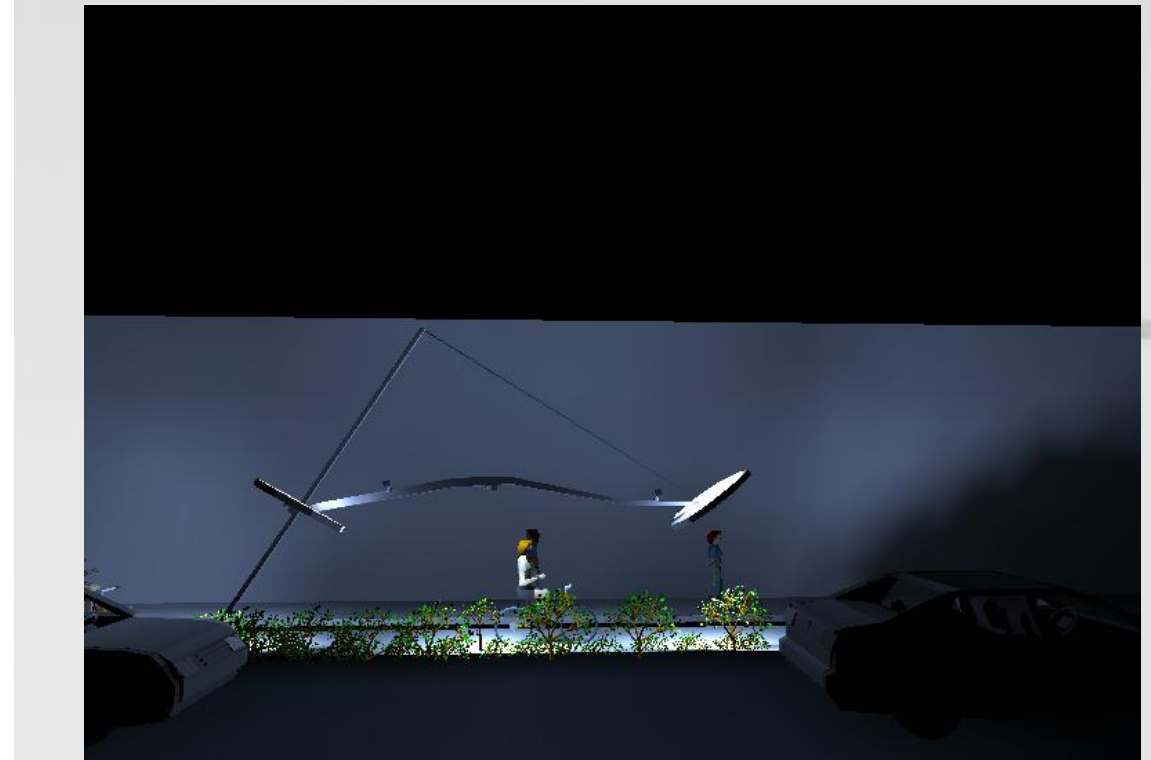




The proposed lighting fitting for the plantings.

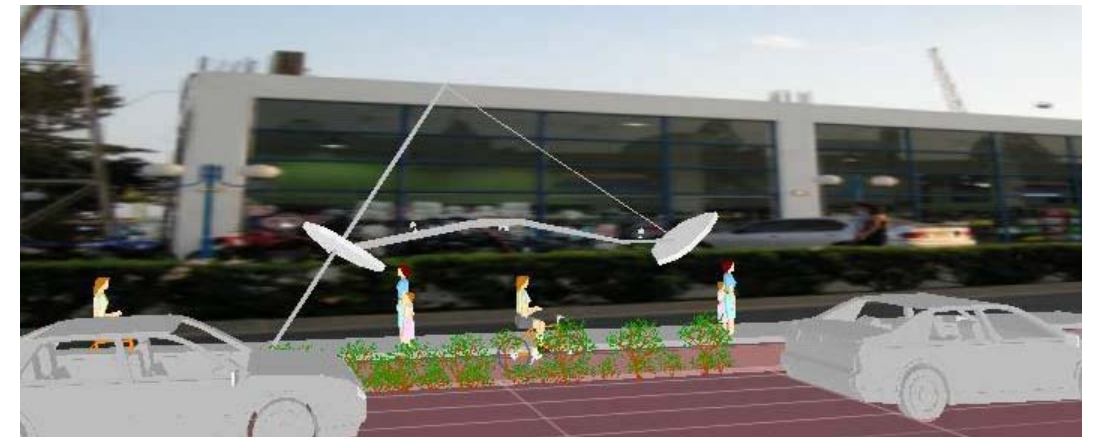
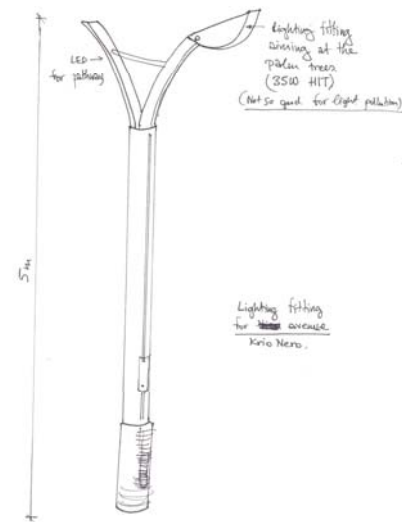


The fitting for the cycling path of Nissi Avenue

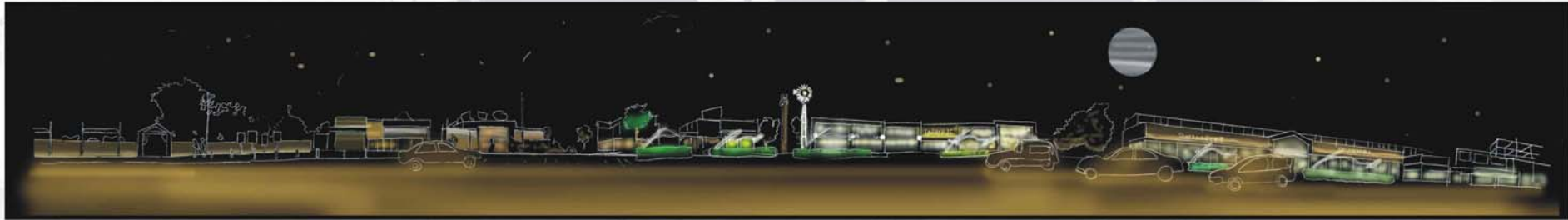


The proposal

Special lighting fitting that will illuminate the palm trees



NISSI AVENUE - SOUTH



PROPOSAL

NISSI AVENUE - NORTH



PROPOSAL

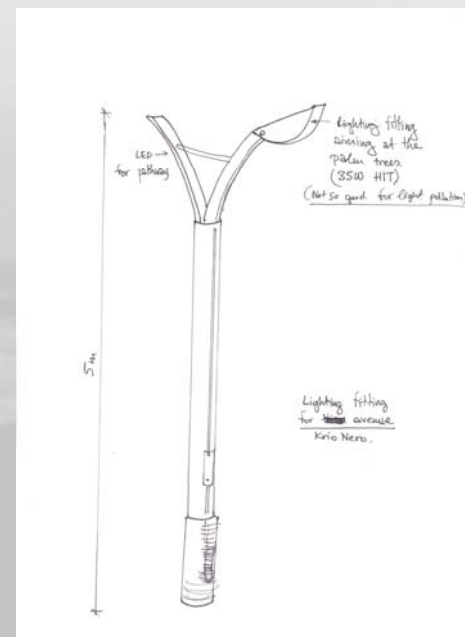
Krio Nero Avenue

This beautiful Avenue is characterised by the palm trees and also of its relative order. It is not similar to the other two avenues of Ayia Napa where there is a lot of noise and low density activities. The fact that was created after the rest of the commercial strips and the fact that is situated at the end of the limits of the building area makes this avenue a unique piece in the puzzle.



The proposal

The trees will be illuminated by the same special fittings proposed for Nissi Avenue. Emphasis will be given to the greenery.



The clubbing area

This area is situated almost at the centre of the town and extends along the Ayia Mavri street in front of the municipality. The flow of the people starts from the square and continues in the heart of the historic centre to find its way out towards the municipality area. The clubs used to be residences or hotel apartments. Once you pass the square many employees of clubs approach you to sell tickets for the clubs.

The fighting and the bad reputation of Ayia Napa occur at this area frequented mostly by young people. It is a mixture of residential and clubbing use. Who is unfortunate enough to stay there, will not have the opportunity to sleep. Not before 2.30 in the morning when all the activities stop till the next day.

The existing lighting has nothing to do with this area. The same lighting fittings for the port were used here! The optics of many of them have been sprayed with black paint because the glare they produced was not matching with the activities of the night.

It is really difficult to propose something for the lighting of this area.

The existing situation



The proposed situation



The port

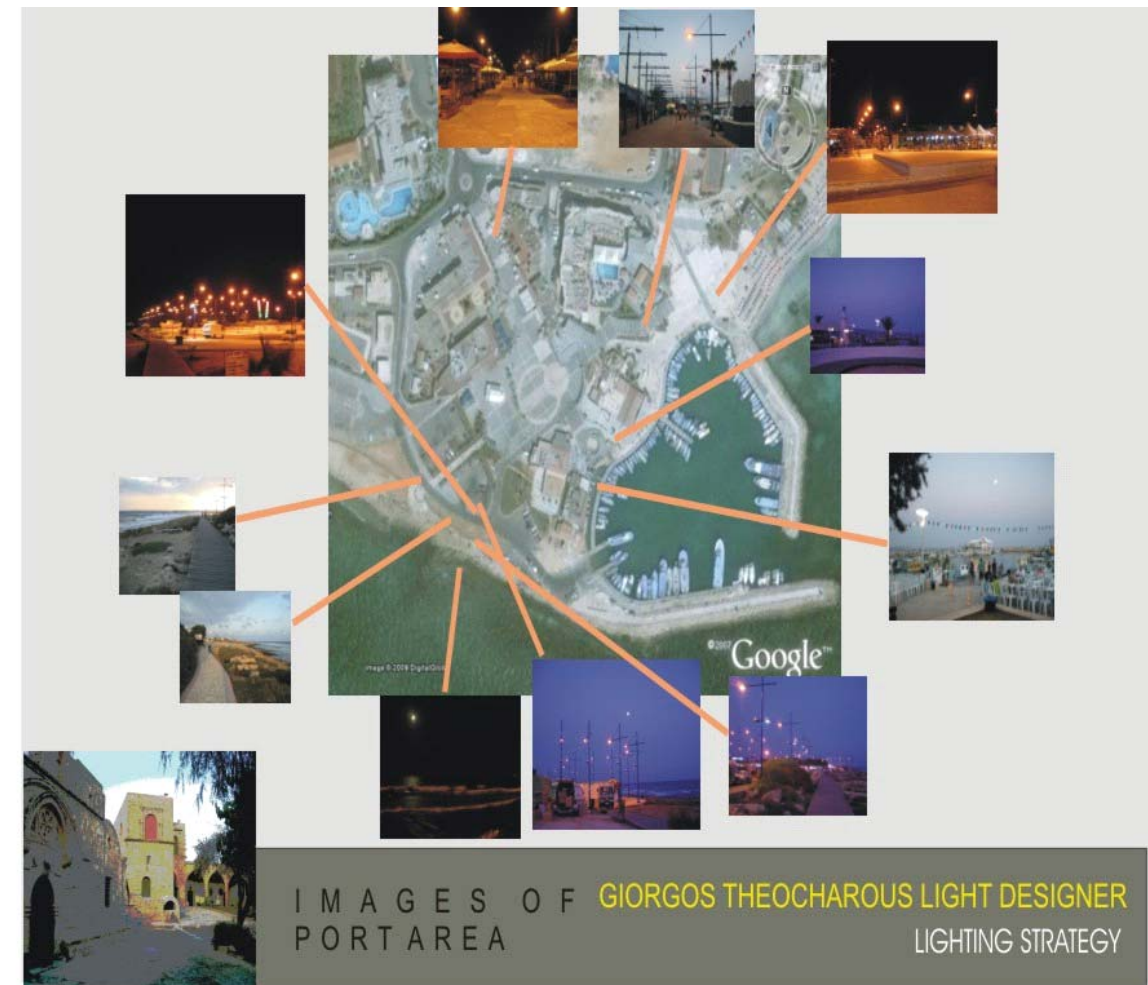
Existing situation

When someone walks through the area of the port is noticing the numerous poles that have a double role. The one is to support the lighting and the speakers and the other is during the day they are supposed to remind the posts of the sailing boats. Not a very successful approach, in my opinion, because it ruins the landscape of such a peaceful area. These high poles enter between the eye of the observer and the sky and they obstruct the observation of the play of the light between the sky and the clouds. The other problem is that they are numerous, they consume a lot of energy and their distribution in the space has nothing to do with the activities taken place in the area.

The area of the port is the only area where the locals are having their festivities and the presence of the tourists is not so obvious especially in the restaurants next to the seashore. There are more tourists at the 'entrance' of the area who visit the small shops and tourist restaurants.



View of Makariou Avenue from the entrance of the port.



Photos of the place.



The small Greek Orthodox church



The corridor of the entrance



The deck



A view of the restaurant next to the decks.



The festival area

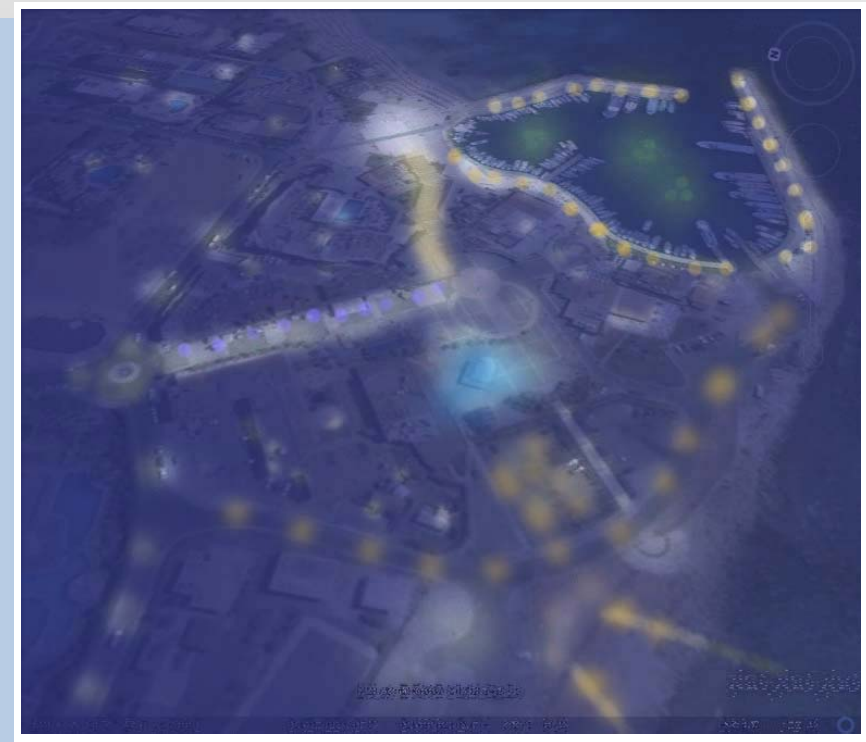


The cavo Greco rock. It is visible from the port.





Sketch of the concept



The lighting proposal





The first attempts

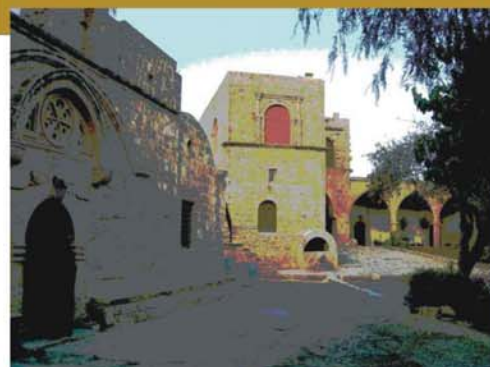


LIST OF LIGHTING FITTINGS

- PENDANT 1X48W LED SPAN-WIRE

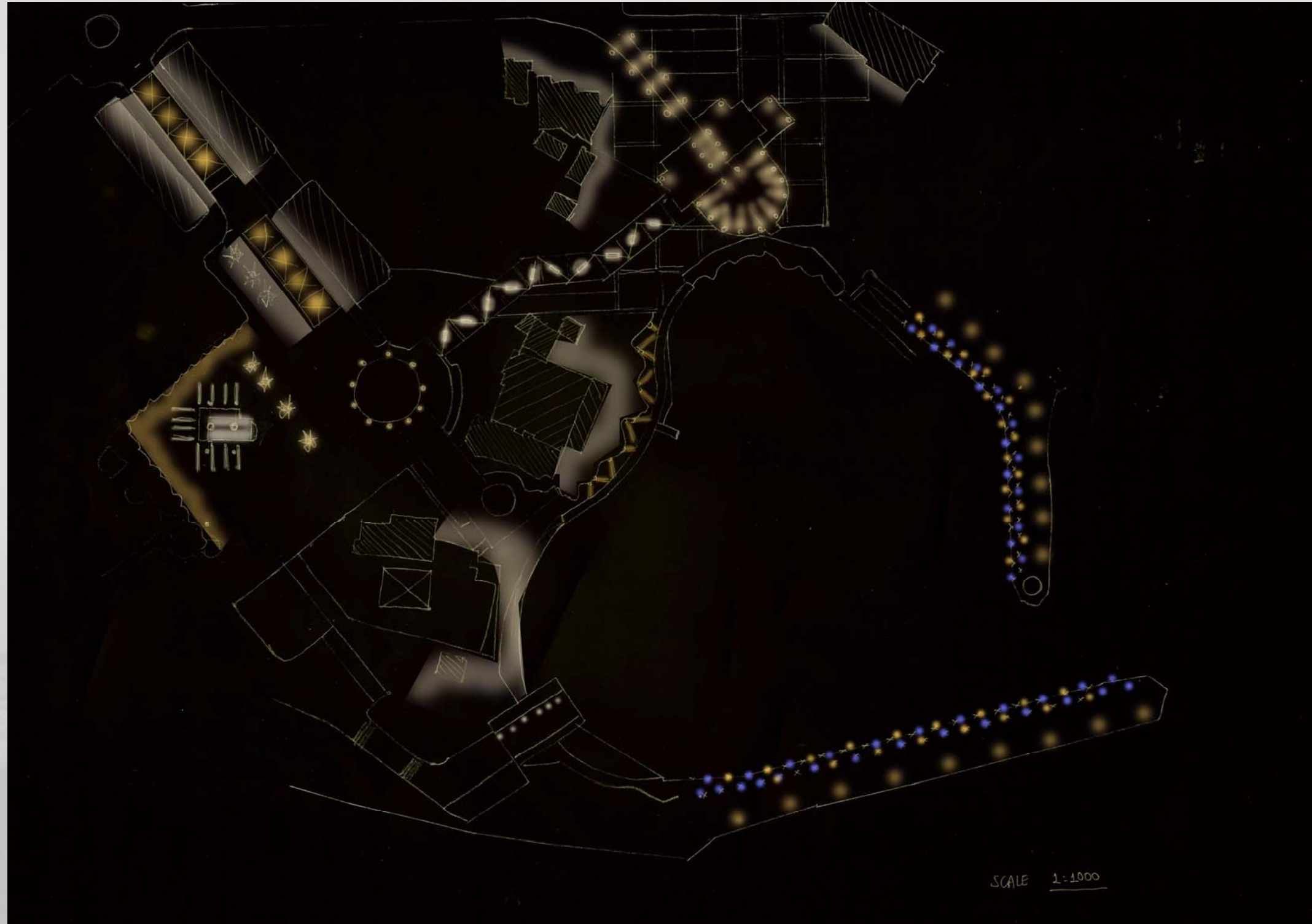
- PROJECTOR FIXED ON THE TRUNK OF THE PALM TREE.

- PENDANT 1X26W LED SPAN-WIRE
- PROJECTOR 12W LED

- FLOOR MOUNTED 1,5W LED BLUE

- FLOOR MOUNTED 1,5W LED WARM W.

PLAN OF PORT WITH PROPOSED LIGHTING FITTINGS

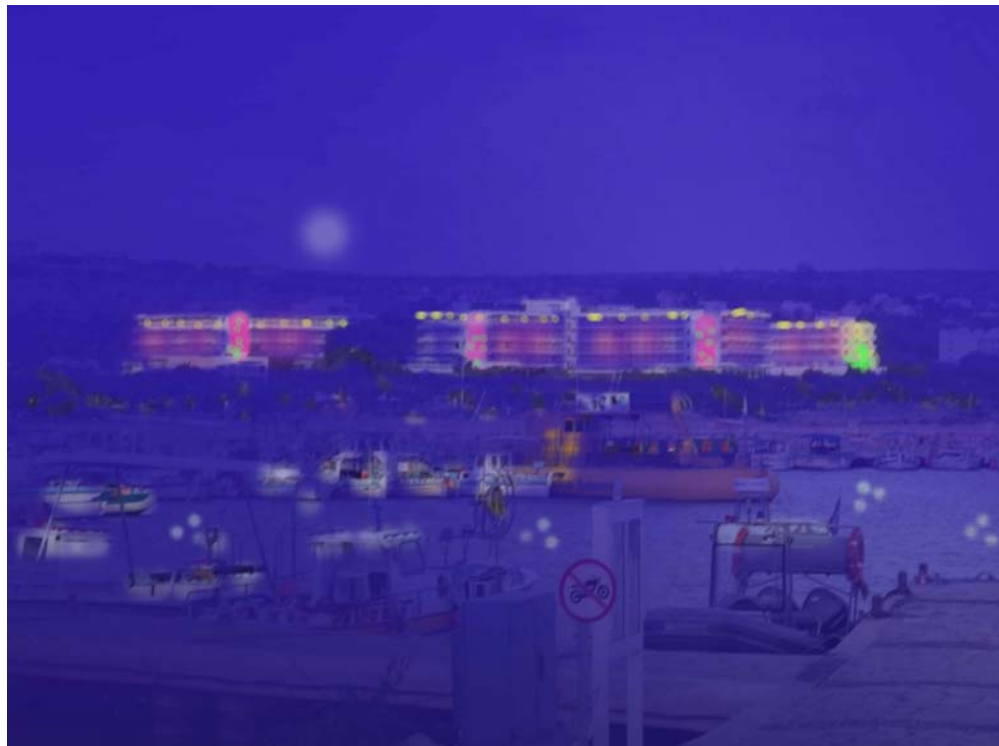
The proposed nightscape of the port area





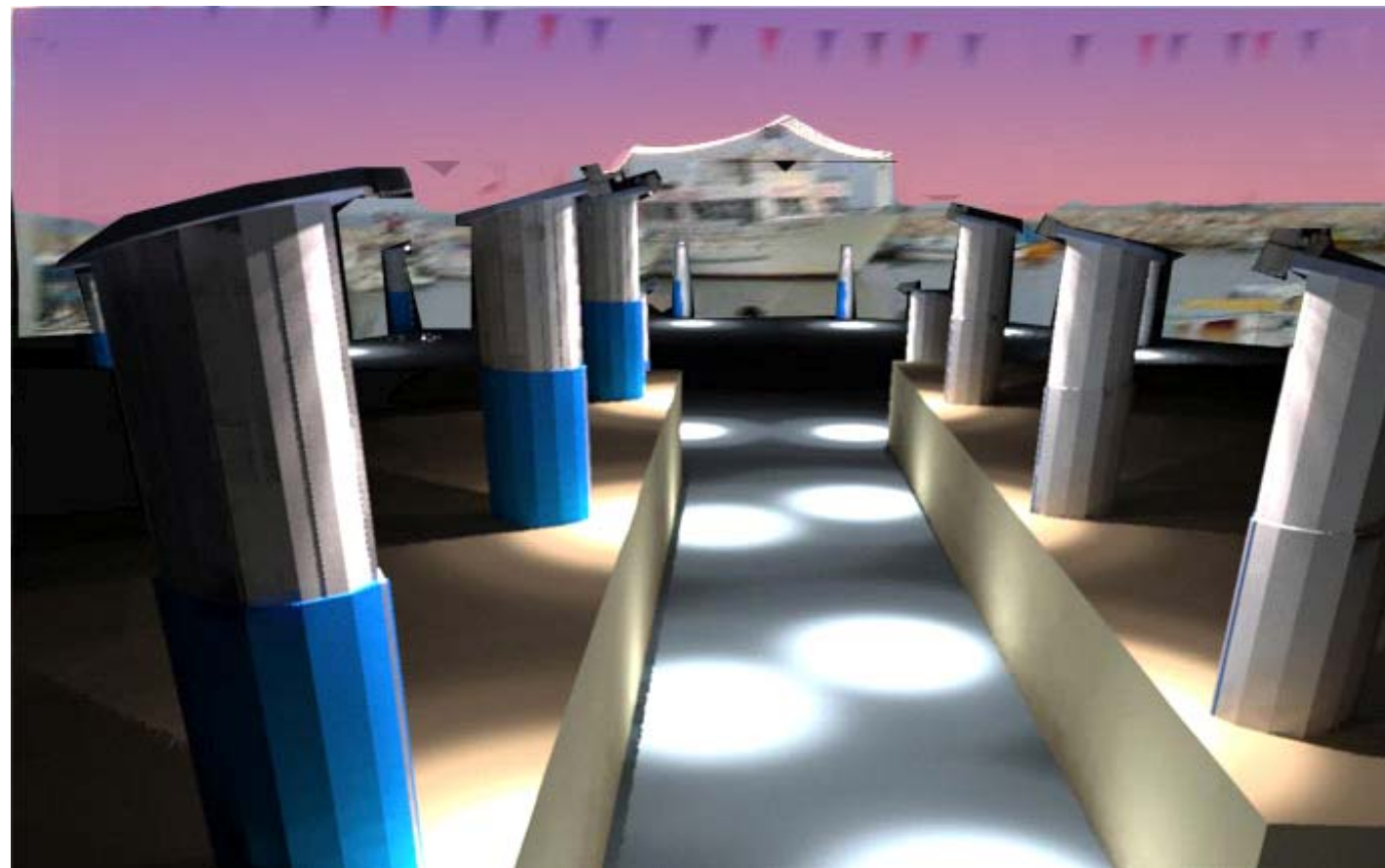
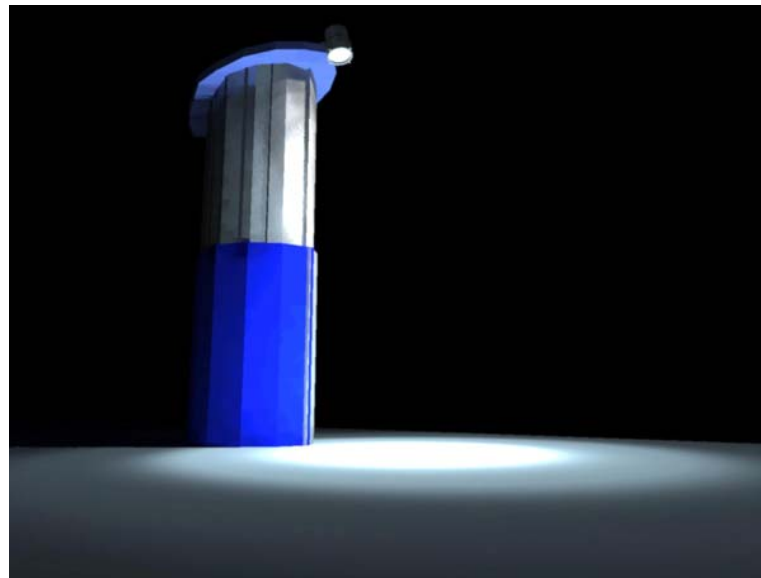
The 'Klima' (vine plant in greek) is reproduced in an allusive way.

The structure is setting limits to the shoppers and also brings a taste of Cypriot culture at the place. The main use of this 'scenery' is to attract the tourists towards the area of the port.

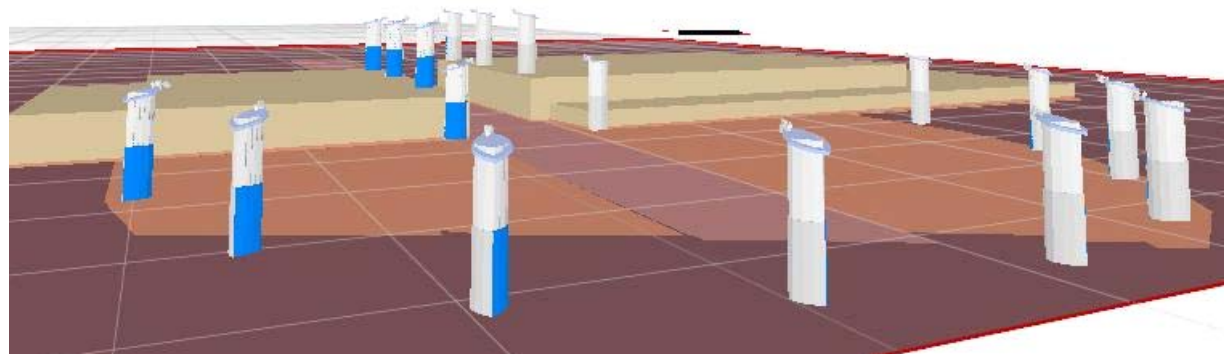


The facades of the hotels are used as a canvas for the spread of vivid colour light.

The festival area



**Another attempt to bring a touch of Cypriot culture
In the place is the transformation of the place into a
Scenery that alludes a Greek agora. The place
suffers from anonymity and the columns will bring
the solution.**



The pathway

The pathway along the beach that starts from the port is now in complete darkness.

A new intervention has already been approved by the government for the installation of high poles with solar panels.

I personally do not agree that such intervention will not affect the environment negatively. The excuse that the lighting fittings must be high enough (4m) to avoid vandalism has no logical ground.

The risk of vandalism in areas away from the populated areas is low. The proof of this is the fact that the lighting fittings of the pathway along the aqueduct are intact.

In my opinion the general light from the new poles will affect the beauty of the scenery during the night. It will make the rocks and the natural plants look like flat and colourless. The visitor will be deprived from his right to admire the natural beauty environment during the night but also during the day because the landscape will be full of metallic poles. The glare from the poles will destroy the vision of the sky and the stars.

It will also affect the nightscape of the whole town because the pathway will look like a highway from far away and from the sea.



Day



Sunset



First attempts

The proposal



The lighting fittings in the area near the port where the limits of the parking place are next to the pathway are illuminating also the last part of the pathway to show the end or the start of this nice experience. At the rest of the path only the small lighting fittings will be used. They have a double use. One side is illuminating the pedestrians and the other drops a strip of light in the water. Only a strip of light so the quietness of the space is not disturbed. It is actually a small container of low height so during the day is not very visible.

The restaurants and pubs.



Before

After



Before

After



After

Recommendations for restaurants:

- 1.No lighting fittings are allowed to be positioned on the perimeter of the property.
- 2.The logo of the restaurant must be made with linear luminous letters of 5 cm max. of width.
- 3.No luminous stripes are allowed on the façade of the property or any other side facing the street.
- 4.The full menu must be exposed next to the entrance of the property and 50 cm X 100 cm maximum of dimension.
- 5.Samples of the menu (five max.) can be exposed additionally. Their size must be 15 cm. X 30 cm. and they must be situated left or right of the entrance and the maximum distance between them must be of 30 cm. They must be positioned higher than 50 cm from the surface of the pavement. They can be illuminated by a separated source of light of not more that 50 W directed only towards the surface of the menus. Self luminous signs are not allowed.
- 6.No other luminous signs or other ads are allowed to be exposed on the perimeter of the property.
- 7.No light from the exterior or the interior of the property must spill light on the pavement of the street.

The shops



Before



After



Before



After



Recommendations for shops:

- 1.No projectors or other lighting fittings are allowed on the façade or on the sides of the shops. No light source is allowed to direct light on any vertical surface.
- 2.For the illumination of the logo of the shops only linear light sources are allowed to illuminate the letters.
- 3.In case of a luminous sign for the logo this must cover only half of the length of the façade and must have no more than 50 cm of height. If the luminous sign is positioned vertically with maximum width of 50 cm, this can cover the whole height of the ground floor of the building.
- 4.The logo must appear only once. It is not allowed to position any structure within the open space in front or on the sides of the building.
- 5.No light source is allowed to be aimed towards the public space in front or on the sides of the shop.