

# participant's posters

PRIZES

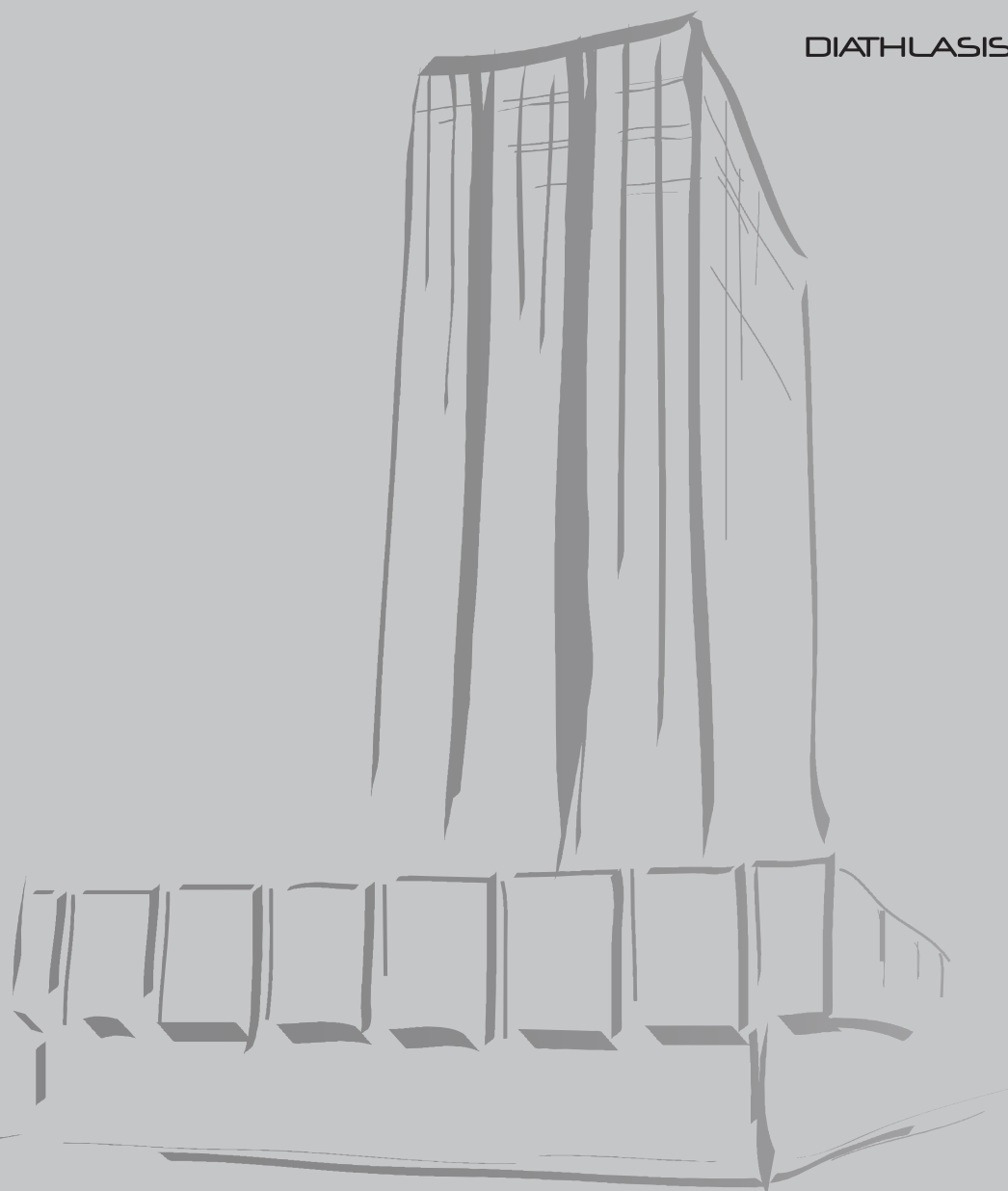
MENTIONS 'A

MENTIONS 'B

GREEKARCHITECTS MENTIONS

VAKALO MENTION

DIATHLASIS SA MENTION



**WINDSCRAPER:** Ever since the first air-conditioning system was installed in 1902, our interior world became independent from the world outside. Although this is sometimes called 'efficient', sealed buildings completely disassociate us from the natural world, leading to greater energy consumption and pollution, a key component of the global environmental crisis. In order to save us from the imminent ecological catastrophe, strategies of energy efficiency and sustainability must move beyond conservation: we need buildings that harvest the environment for energy, synergizing the building's performance with natural forces. In our concept, the building is equipped with an additional layer of wind energy harvesting technology that serves three main purposes.



EXTERIOR VIEW



EXTERIOR VIEW



INTERIOR VIEW



ELEVATION DIAGRAM

-1-

First, it transforms wind energy into electrical energy using a wind-farm façade that is equipped with power-rod extensions and wind catchers resembling artificial leaves. A real-time display of environmental conditions, the technology is inspired by the research and development of Seabased Inc., a company responsible for a Swedish wave energy park where the movement of waves is translated into usable electrical energy.



EXTERIOR VIEW

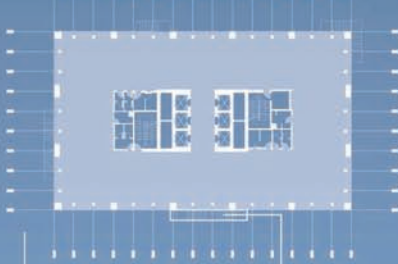


SECTION DIAGRAM

electrical  
equipped  
catchers  
the display  
technology  
opment of  
ble for a  
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al energy.

-2-

Secondly, the façade acts like a tree canopy, generating calming sounds when the artificial leaves move, reconnecting the building's occupants with the natural environment, and offering a new type of natural experience within a high-rise. Research has proven that when people inside of a building connect to the outside world they have a higher tolerance for climate discomfort, effectively lowering the need for excessive cooling and heating.



TYPICAL FLOOR PLAN

-3-

The artificial leaves act as shading devices while allowing for a clear view of the sleek curtain wall, generating a new, open and stimulating relationship between the city and the formerly generic tower.



SITE PLAN

-4-

There are additional, exterior stairs (enclosed and open) that meander through the wind-harvesting leaves, allowing occupants to connect from floor to floor more efficiently. They also provide the opportunity to walk through the dynamic, vertical forest-like field.

-5-

The existing façade is retrofitted with high-performance Sentry Glass for transparency and strength. Alesta Eco Coating gives the wind catching façade its durable yet beautiful white glow.



Restaurant

Offices

Garden

Playfloor

Cafe

Stores



«Light – is water of the sky. Water - is the light of the Earth.  
Oh, the noisy light of the waterfall.»  
Fasil Iskander

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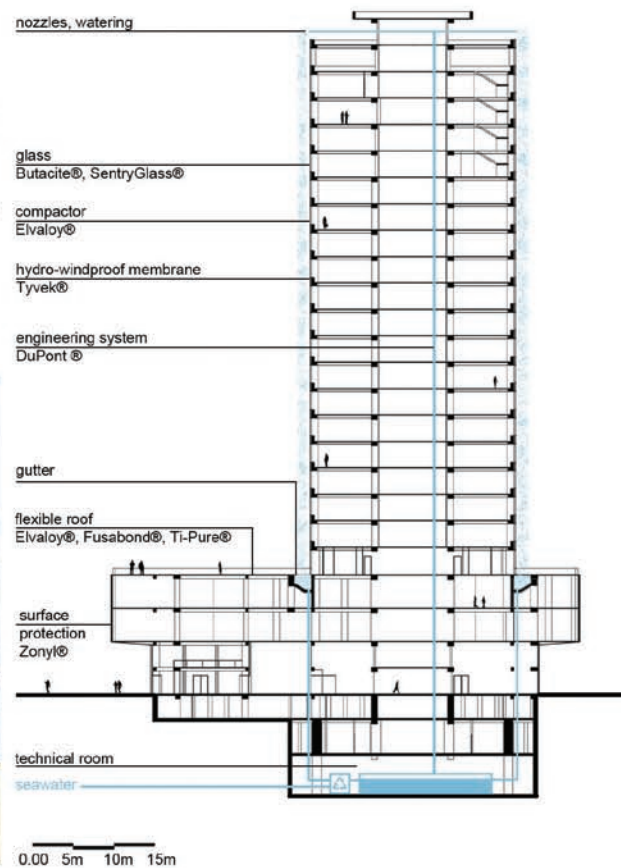
Walking in the public garden on the embankment I had a chance meeting with an old friend of mine and stopped near a bench to have a small talk. We were surrounded by rich grass, blooming acacia and magnolia, splashed in the ozone of the spray. Noisy streets, interweaving, missed one another in different directions. The rocks of the buildings towered majestically. Not any of them resembled each other, but together they made us think of a magic town.

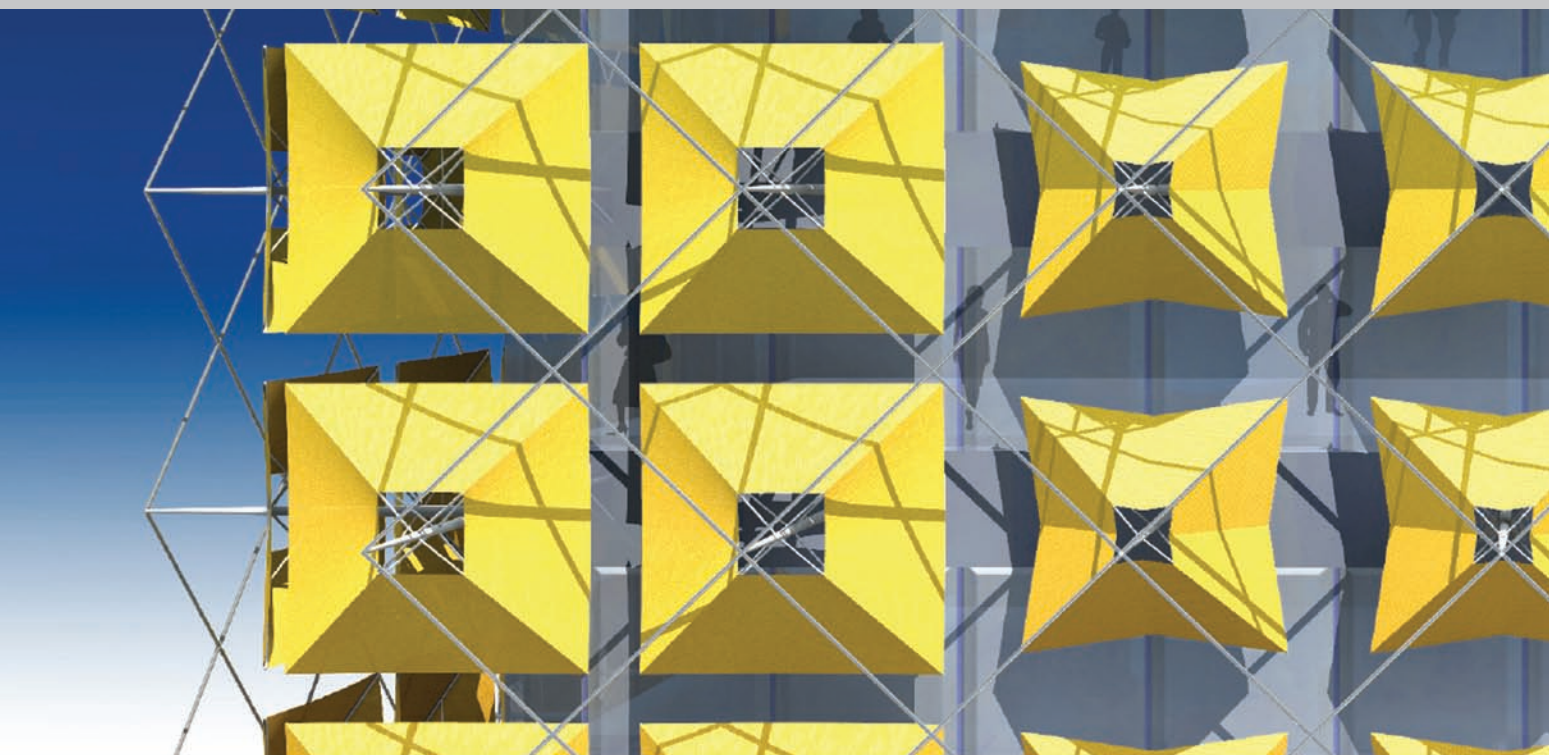
It was a hot summer day. At the crossroads of two streets, from the sky-high wall, just opposite us, fell down a multijet waterfall. Fine water dust sparkled in the sun in many colors, and on the other side of the street a marvelous rainbow was bending. Some flows, striking one another, interlaced and decayed in the flight. The main flow was falling down free, without touching any obstacles. Probably they had been on its way before, but the fall destroyed them with its persistent efforts and now it was falling down, free and slowly, as if being concerned of its own power and holding itself back in the flight, looking even more powerful because of that.

The noise of the waterfall, washing off the residual garbage of bustling sounds of life soothed the soul, we felt its wet breath, and the smell of wet stones, and a light breath of eternity.

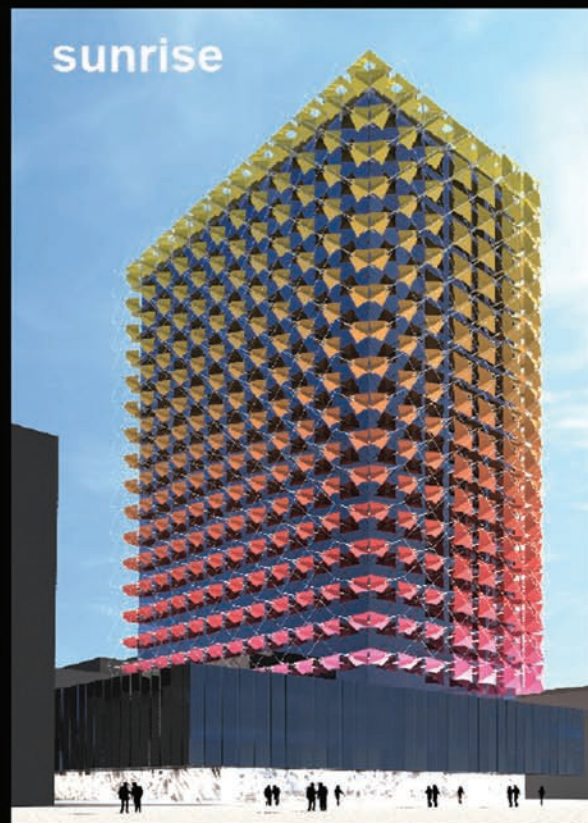
A waterfall, which had come to light on the surface by chance, is a strong flow of the nature's bloodstream. We calm ourselves, looking at it and listening to its wet rich noise. The nature just offers us its wisdom, not imposing it on us. The health of the Earth - is our health!

In the course of conversation and pondering an evening came imperceptibly. At parting I had a look at the embankment and stood still in the silent excitement, looking at the huge water wall, rising to the sky. The streams of blue light were crawling on the huge waterfall; it was towering immovably, in lifeless silence, as if the magical decoration of grandiose apotheosis. Nothing could surpass this show!





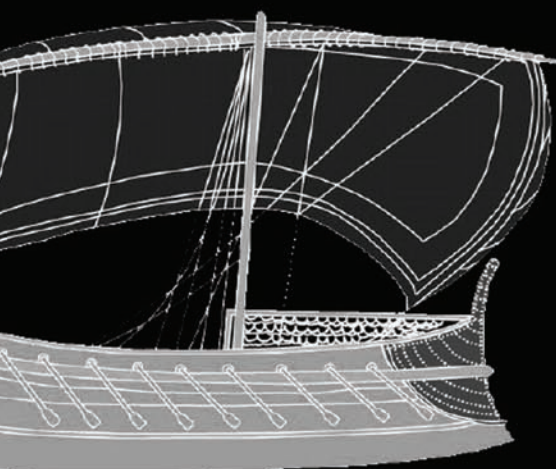
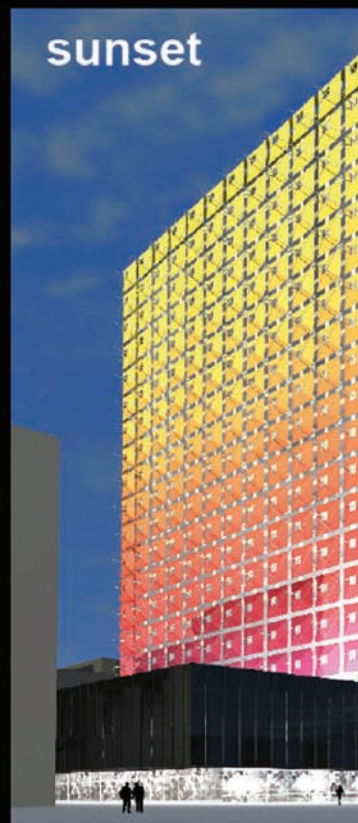
sunrise



midday

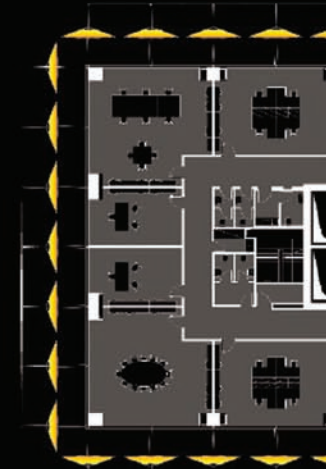


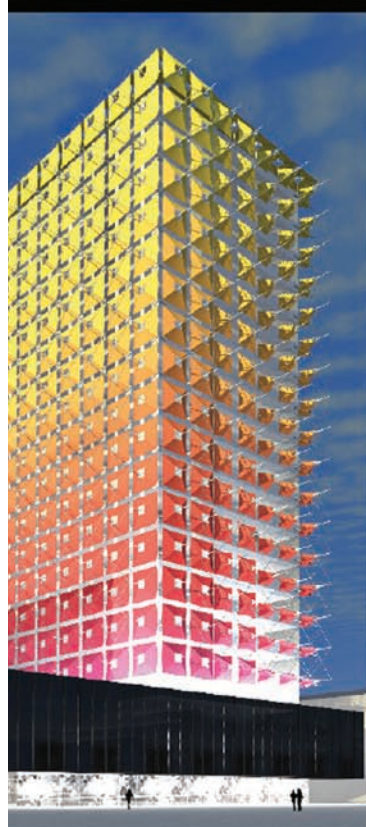
sunset



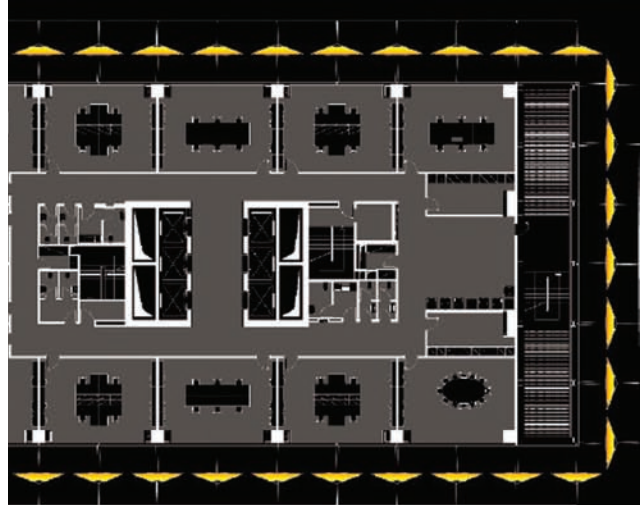
Simple ideas have often been the driving force for the evolution of human kind, like the idea of the sails that allowed Greek ships to cruise all over the Mediterranean sea. Today, in an era of complex energy problems we also need simple solutions to difficult problems. To provide a new look to the tower we have to think more about the environment and the energy consumption that we would spend to climatize a building. It is therefore envisaged that to protect from the sun and to give an old building a new impressive look an intelligent skin composed of a number of colorful umbrellas is constructed. The umbrellas are fixed to a new high performance glass facade and Corian panels and according to the sun position the umbrellas mechanically open or close to provide shadows to the internal spaces. The ever changing sun creates an ever changing facade and at night, when all the umbrellas are open and are flooded with artificial light, the building continues to be a true and new city landmark.

For the main tower block it is envisaged to create a facade very responsive to the climate elements and which is composed of a mixture of high performance glass and Corian panels with insulation in front of the slab area. The umbrellas are standardized in size to be all the same with the canopy made of self cleaning fabric with a low transparency factor to minimize solar gain during peak time. The two lower blocks where the entrance hall, shops and bars are located do not have the umbrellas and more emphasis is given to hard materials. For the windows on the ground floor we propose glazing to allow for transparency which is necessary for shop activity. For the upper floor we propose full height Corian black panels separated by 30 cm of glass panels to break the solid wall and allow for the external light to come in during day time and for artificial light to flow out during night time.

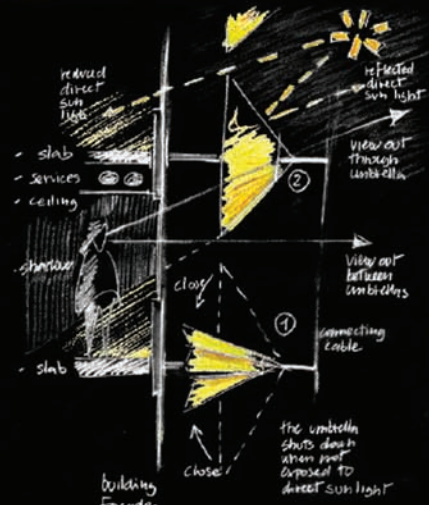




evening



sun tower



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