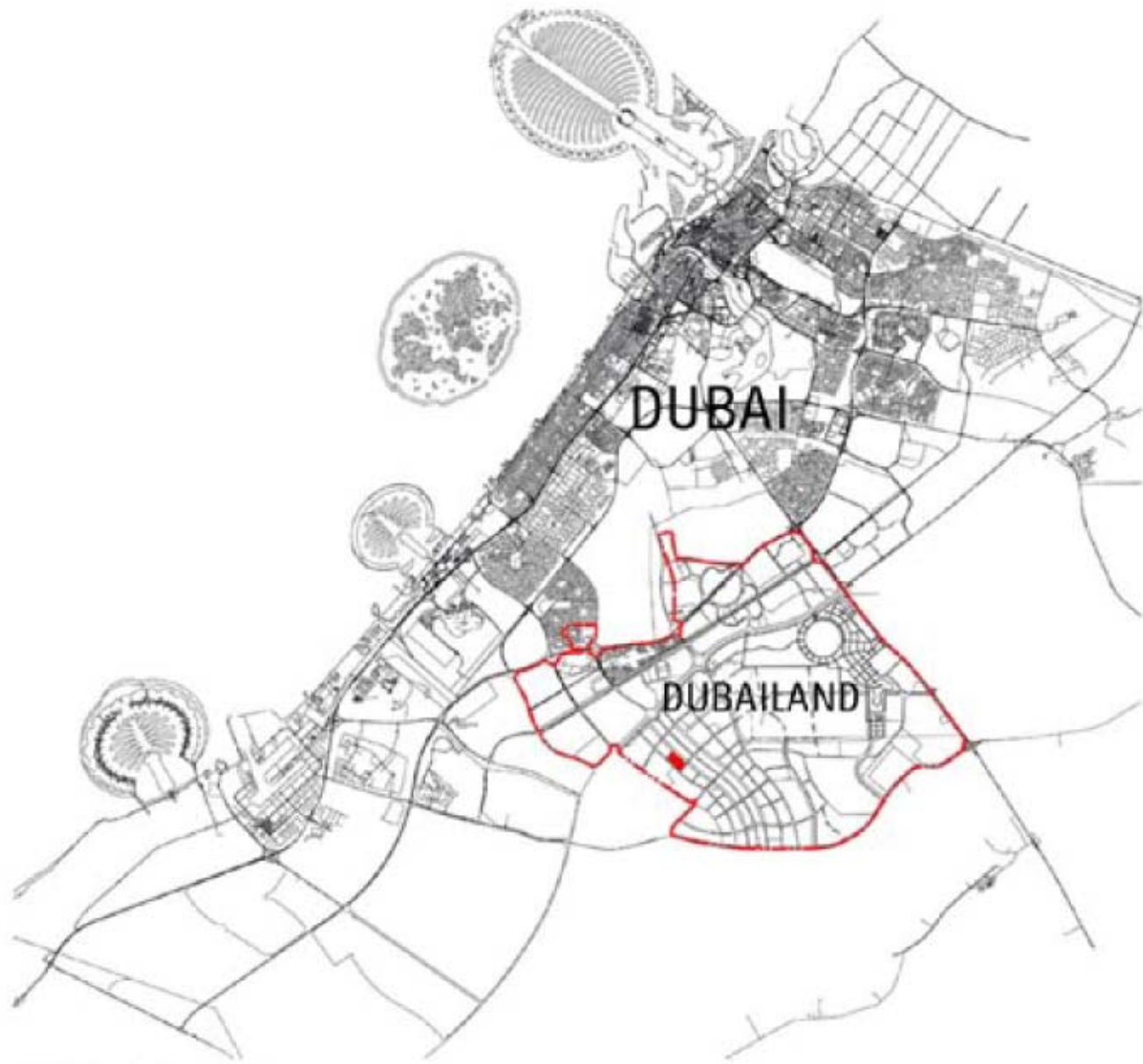


"Xeritown"

A climate responsive Urban Habitation





Site Location



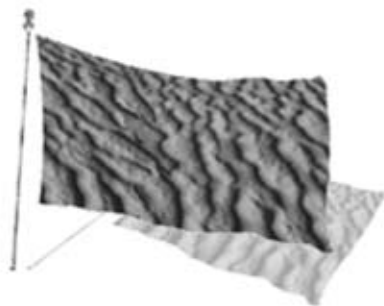


CONTEXTUAL ADAPTABILITY

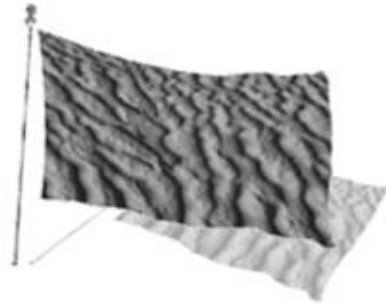


DESIGN AS A RESULTANT OF VARIOUS
NATURAL AND ENVIRONMENTAL FORCES

WIND



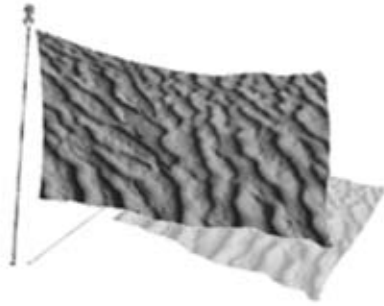
WIND



SUN



WIND



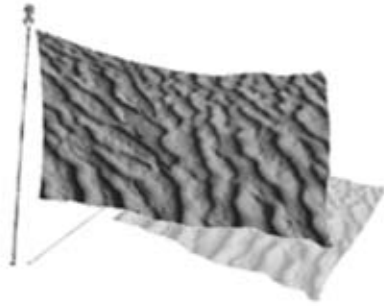
SUN



WATER
&
BIO-DIVERSITY



WIND



SUN

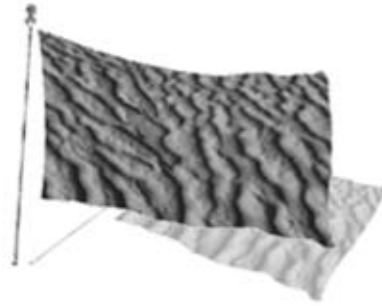


CLIMATE REACTIVE LIVING



WATER
&
BIO-DIVERSITY

WIND



SUN



ENERGY

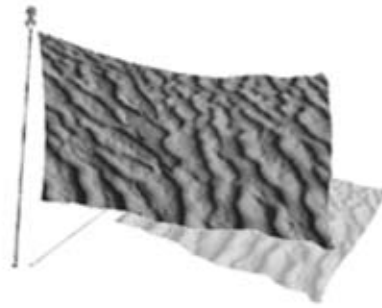


CLIMATE REACTIVE LIVING



WATER
&
BIO-DIVERSITY

WIND



SOIL



SUN



ENERGY

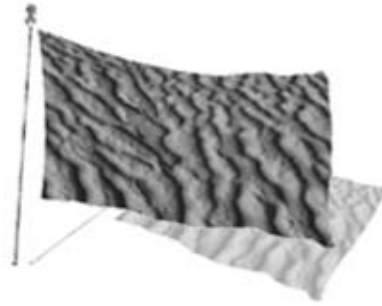


CLIMATE REACTIVE LIVING



WATER
&
BIO-DIVERSITY

WIND



SOIL



SUN



SOCIAL
INTERACTION



ENERGY

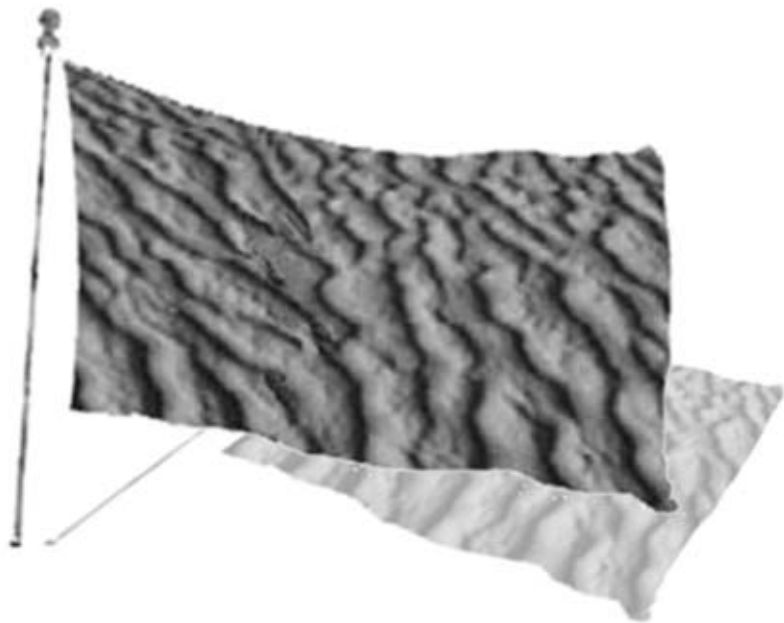


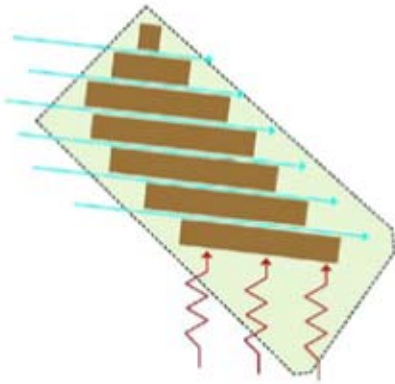
WATER
&
BIO-DIVERSITY



CLIMATE REACTIVE LIVING

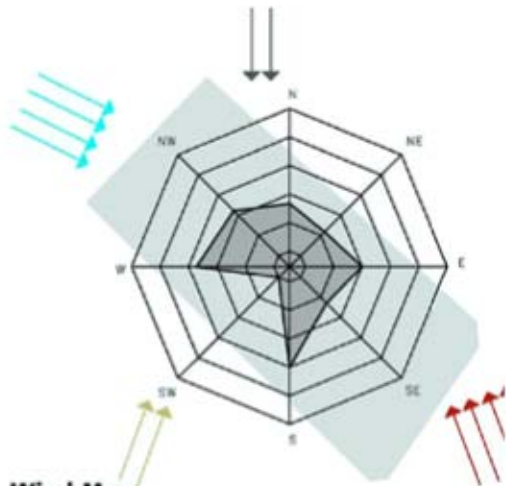
WIND









Ventilation by Cool Winds

Built cut into strips for cool wind channelling



Wind Map

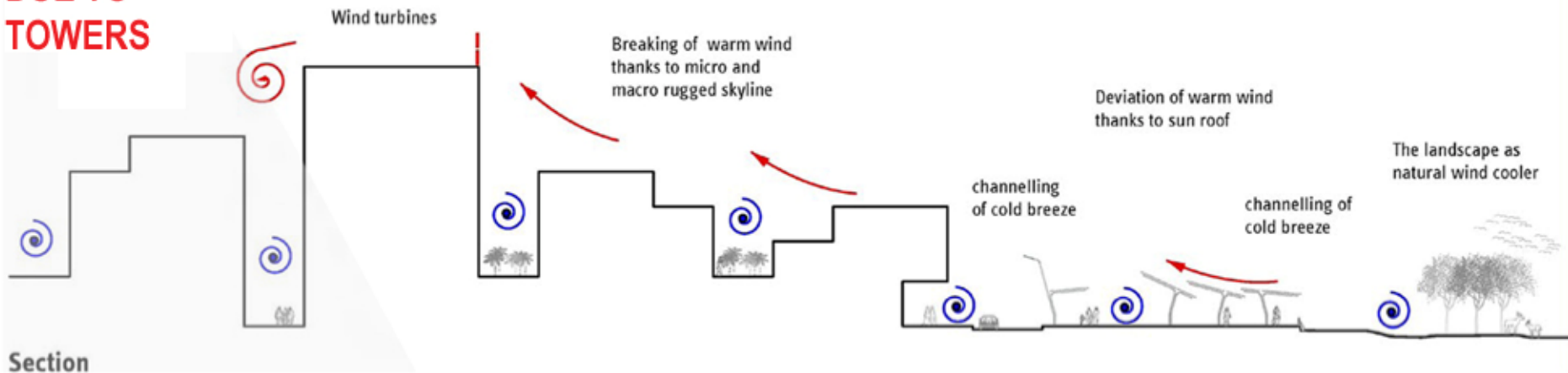
The compact urban Form is broken up and Oriented to gain from the Prevailing winds crossing the site.

-  Cool Breeze Intensity
-  Warm Wind Intensity
-  Cool Breeze
-  Warm Wind

(Re) Active Urban Form : WIND

Wind Turbines, Rugged Skyline, diverters

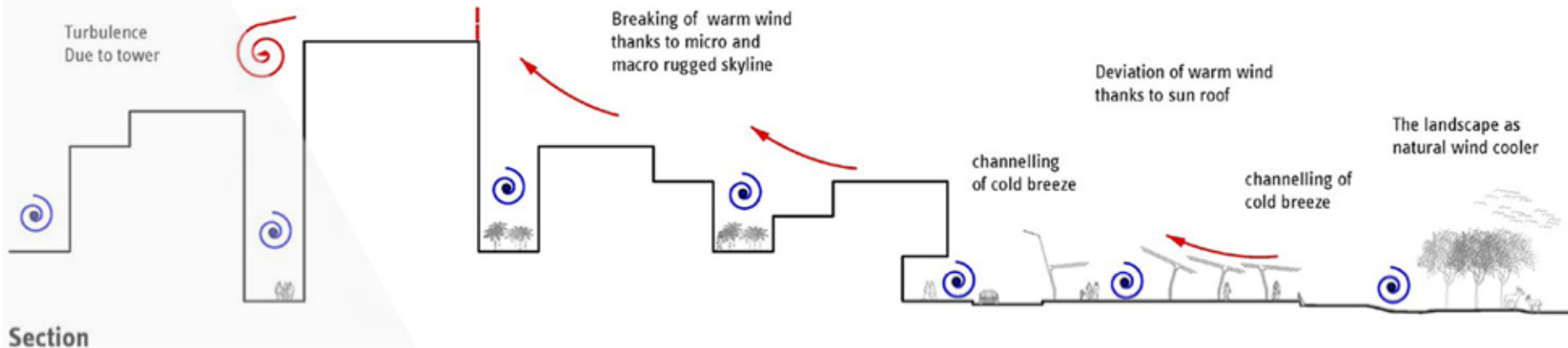
TURBULENCE DUE TO TOWERS



(Re) Active Urban Form : WIND

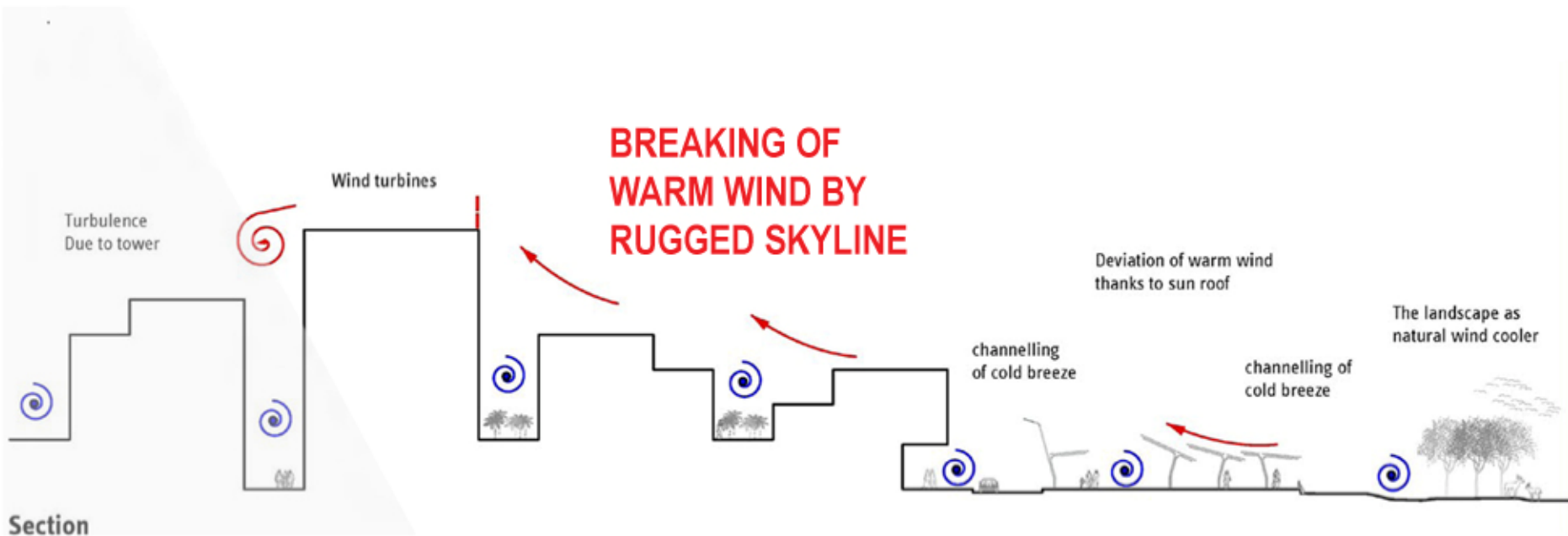
Wind Turbines, Rugged Skyline, diverters

WIND TURBINES ON ROOFS



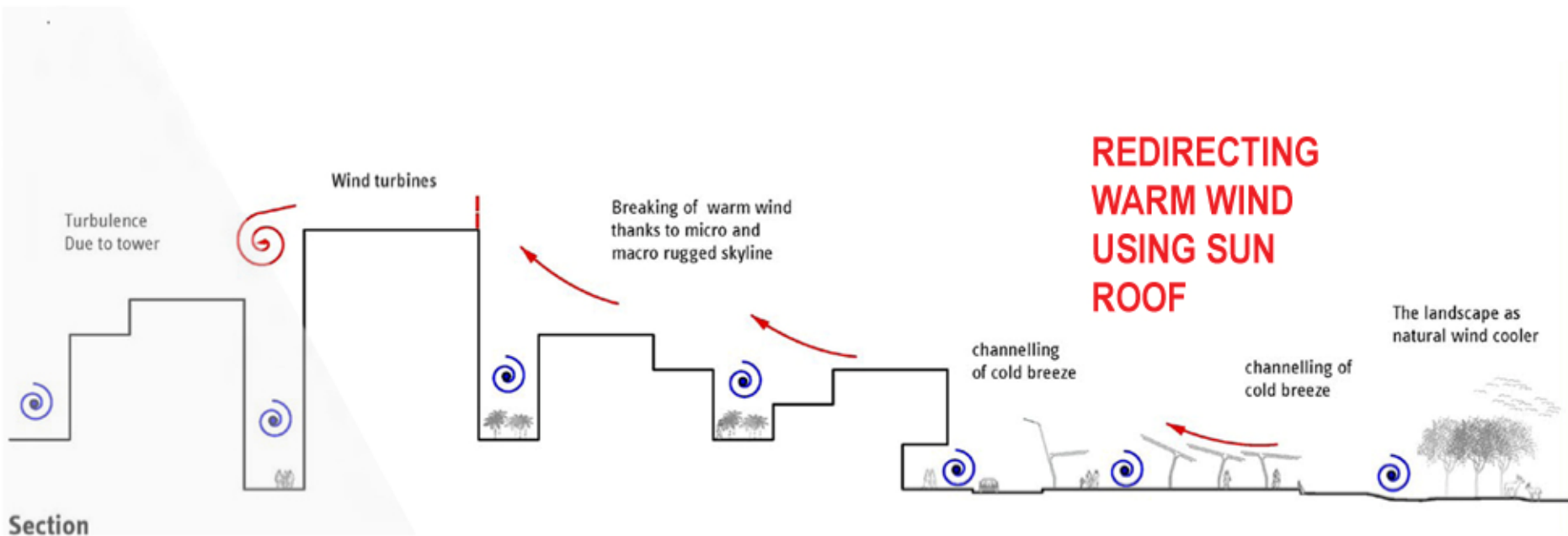
(Re) Active Urban Form : WIND

Wind Turbines, Rugged Skyline, diverters



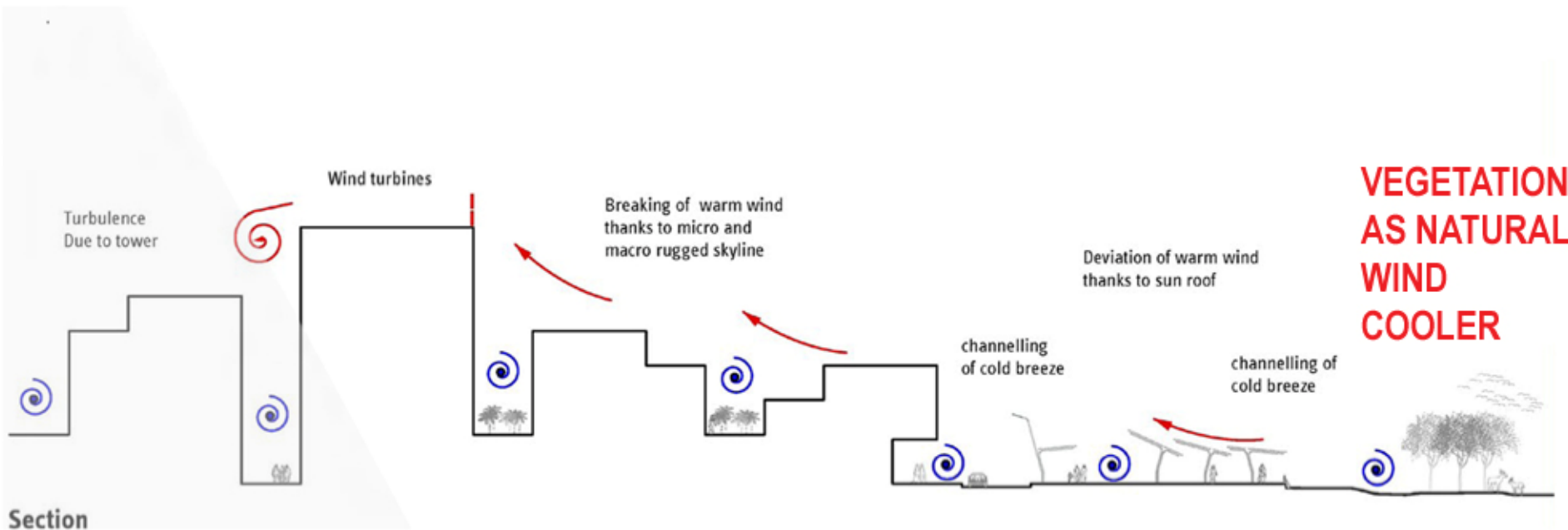
(Re) Active Urban Form : WIND

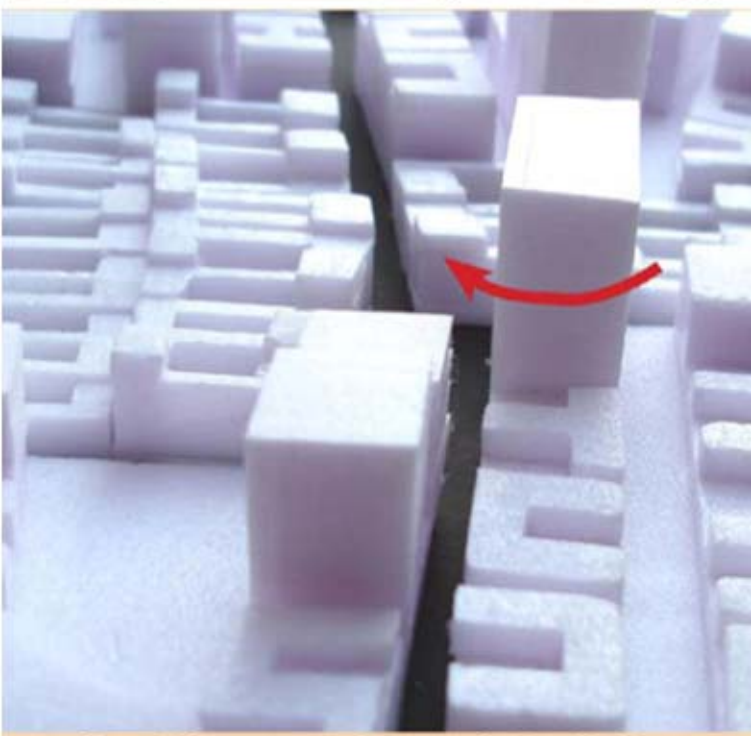
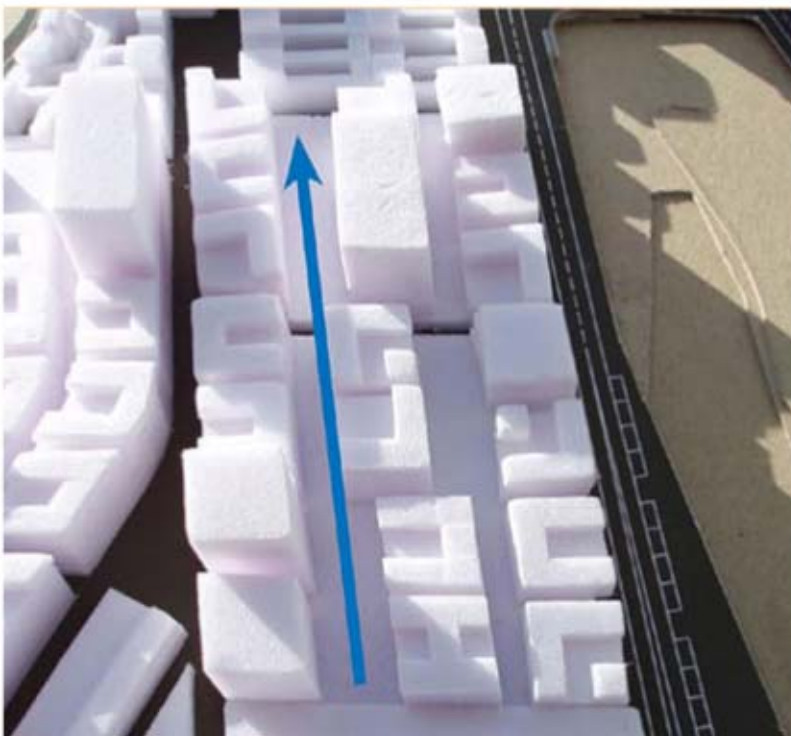
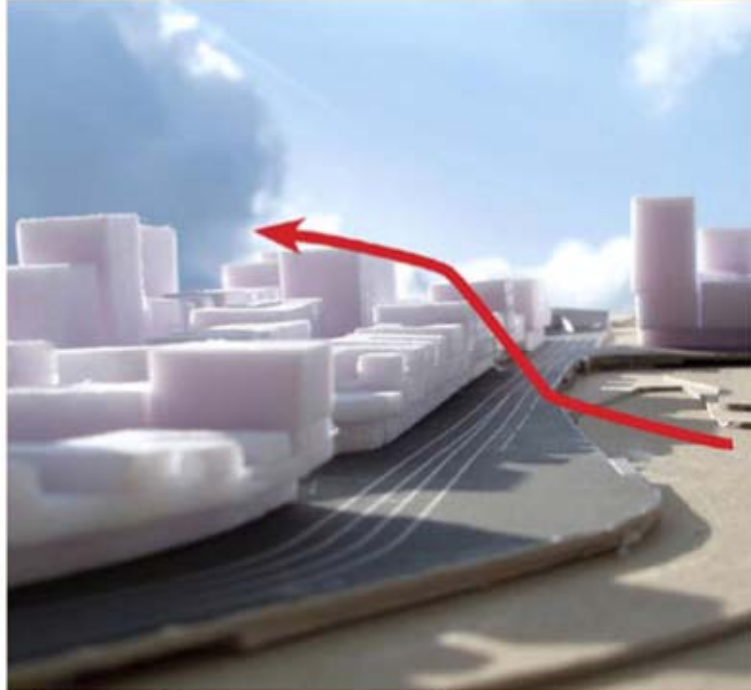
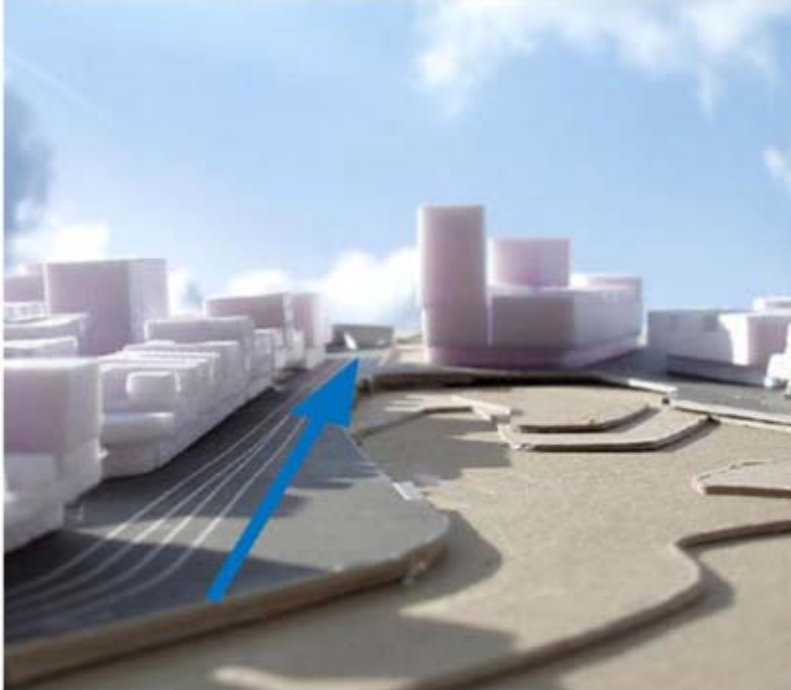
Wind Turbines, Rugged Skyline, diverters



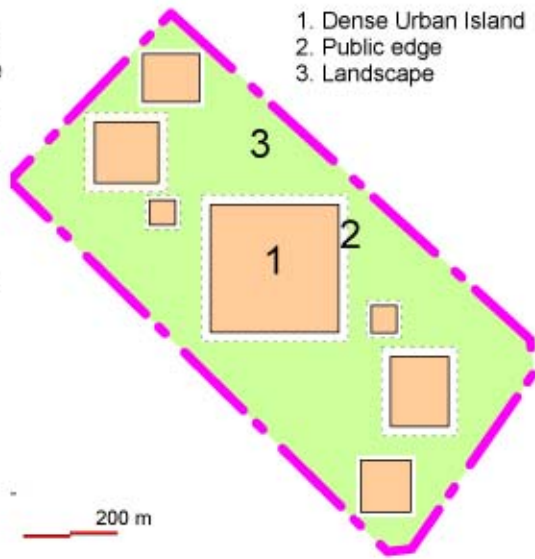
(Re) Active Urban Form : WIND

Wind Turbines, Rugged Skyline, diverters

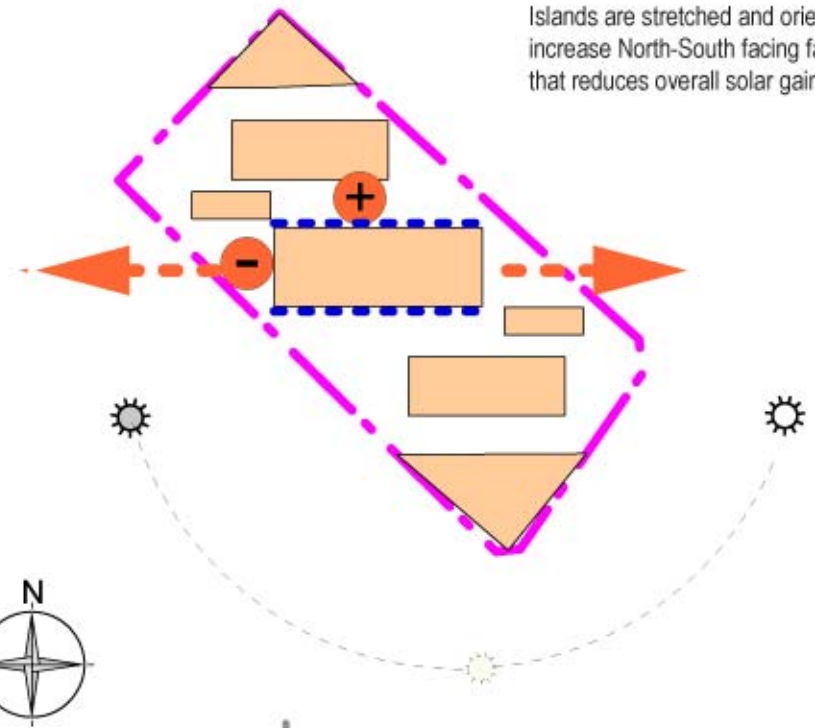




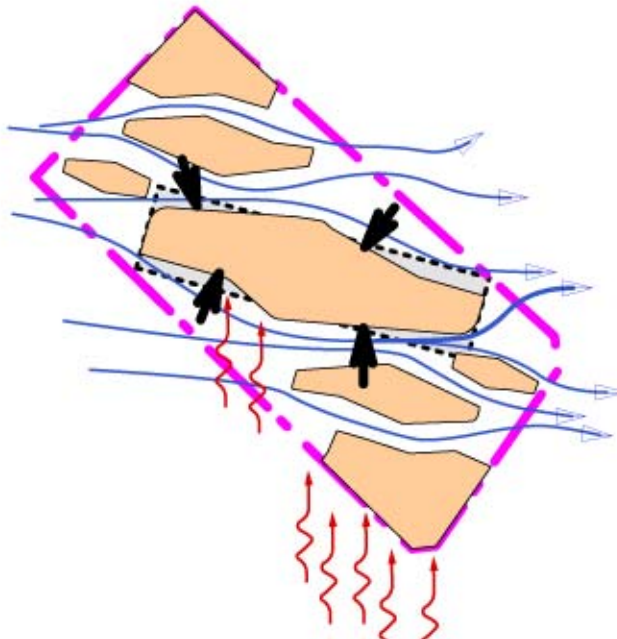
The primary concept is to create a "soft" edge between the landscape and the built form that is both activated and scenic. This is achieved by densifying the built form into islands that are surrounded by landscape, with the street / public edge becoming the mediator between these two conditions.



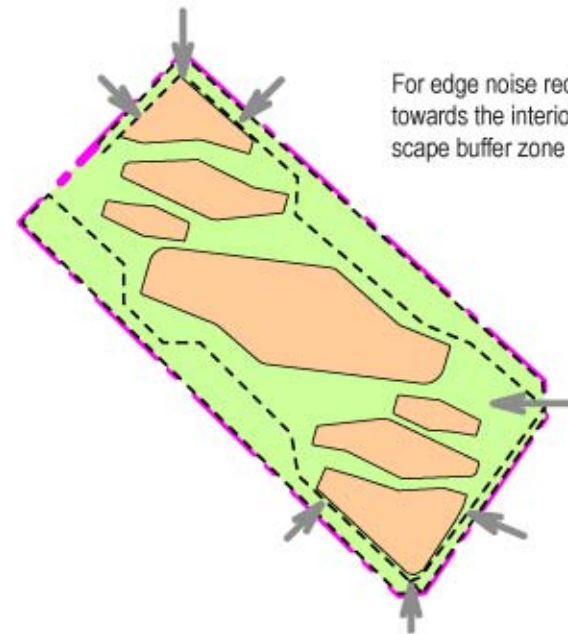
Islands are stretched and orientated to increase North-South facing facades that reduces overall solar gain

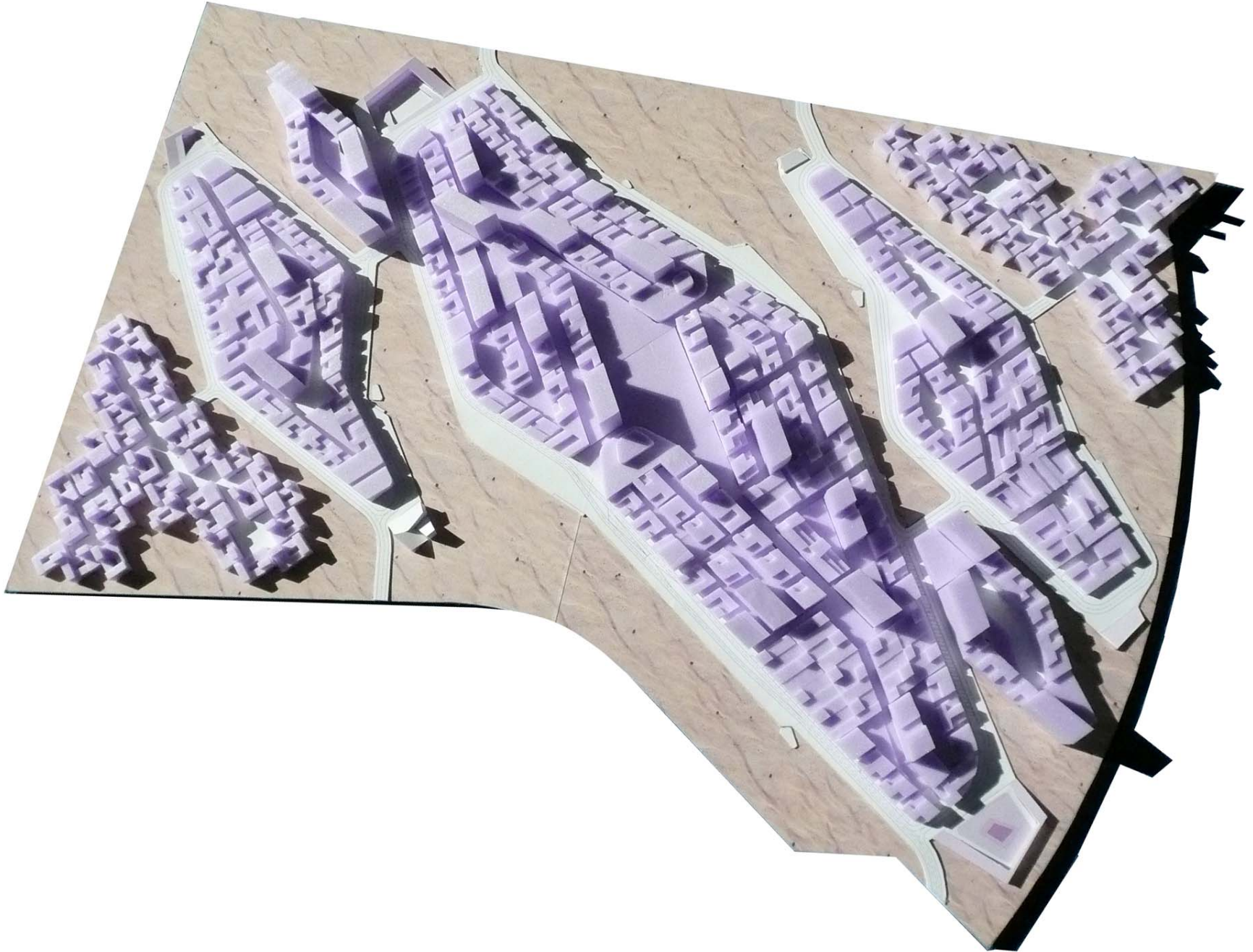


Island edges are sculpted to maximize sea breeze penetration and minimize hot wind exposure



For edge noise reduction Islands are moved towards the interior allowing a min 20m landscape buffer zone

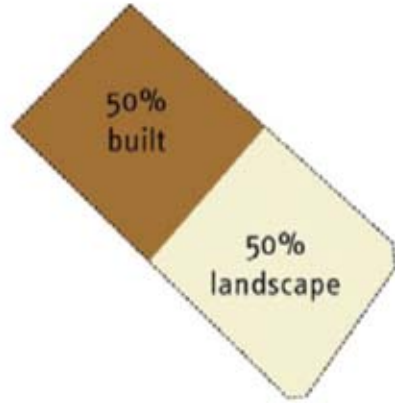




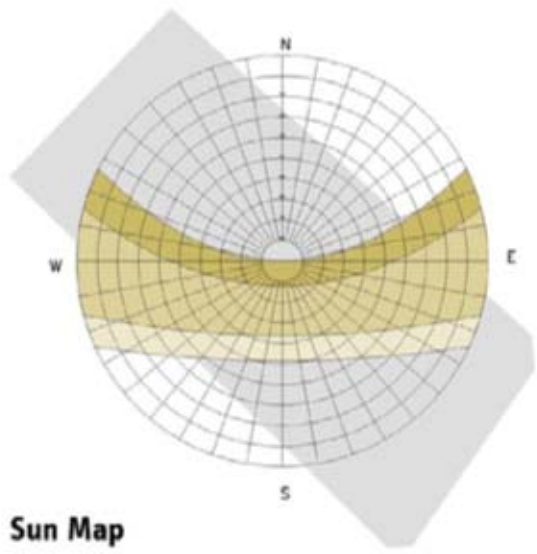
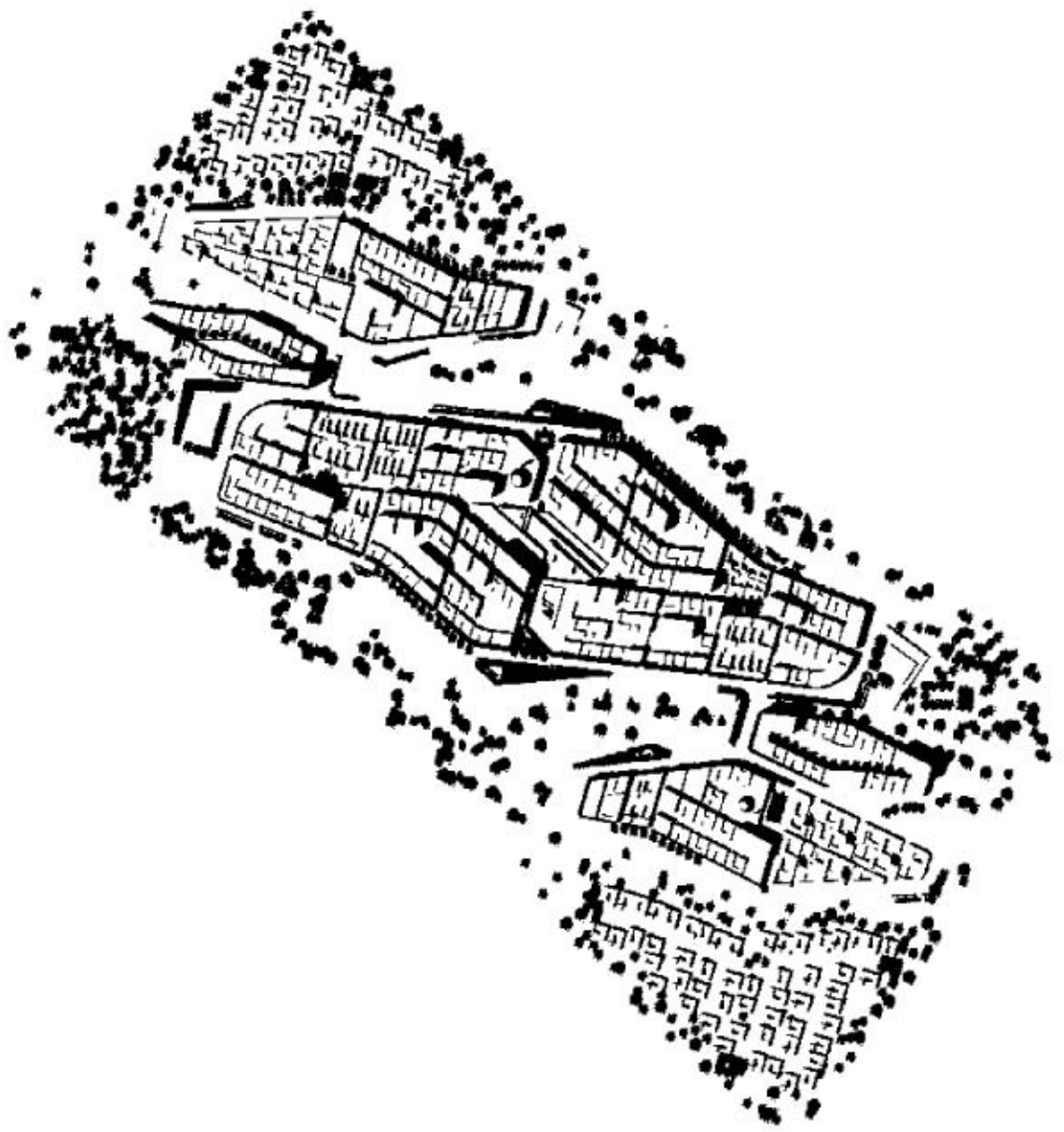


SUN

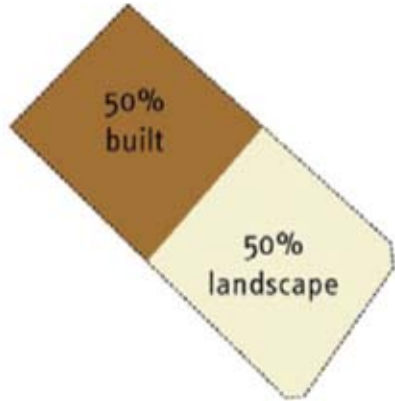




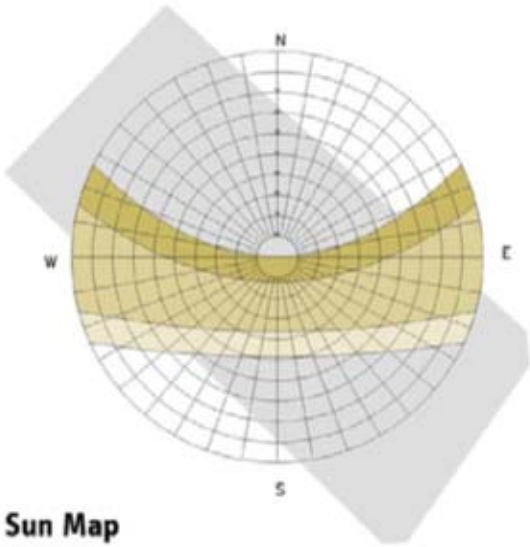
Giving Shade
Compact urban form



Sun Map



Giving Shade
Compact urban form



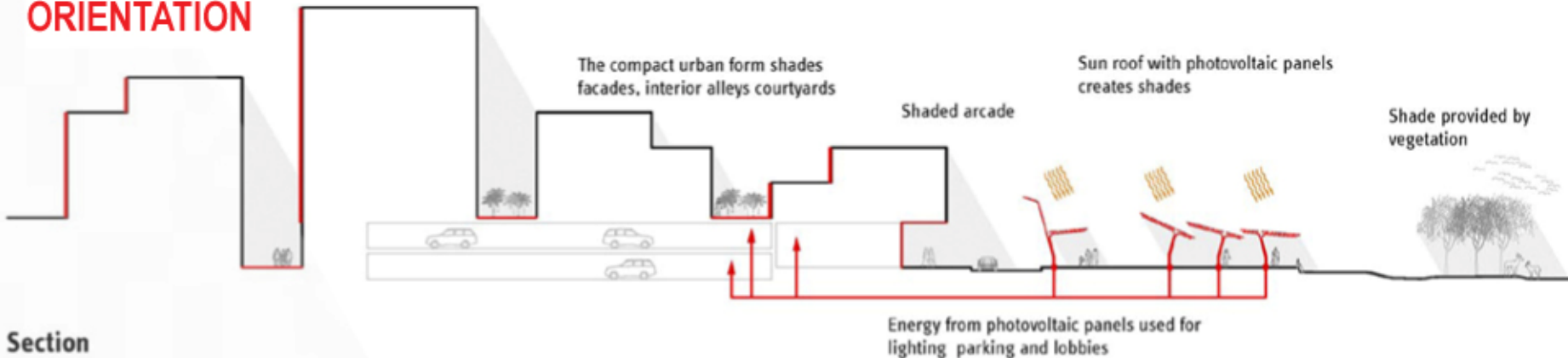
Sun Map



(Re) Active Urban Form : SUN

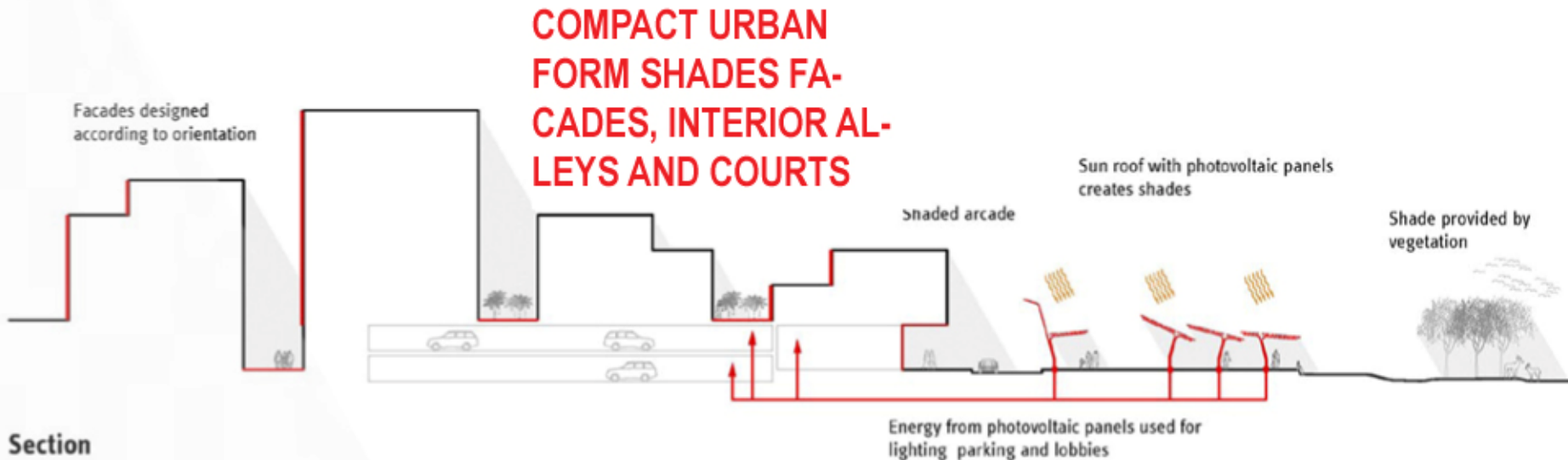
Shading Device: Compact built fabric, Arcade, Urban Sunshade, Vegetation

**FACADES
DESIGNED AC-
CORDING TO
ORIENTATION**



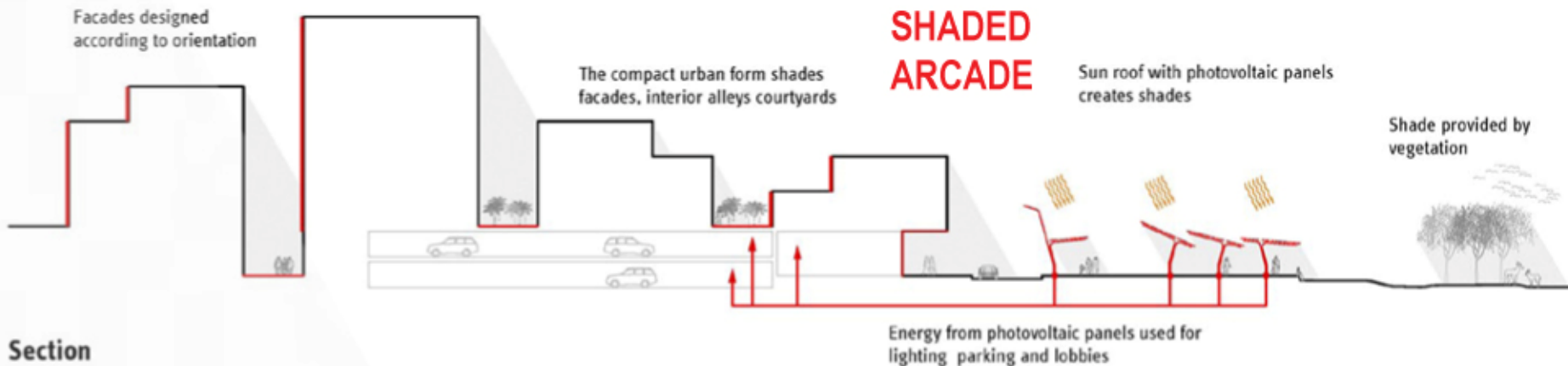
(Re) Active Urban Form : SUN

Shading Device: Compact built fabric, Arcade, Urban Sunshade, Vegetation



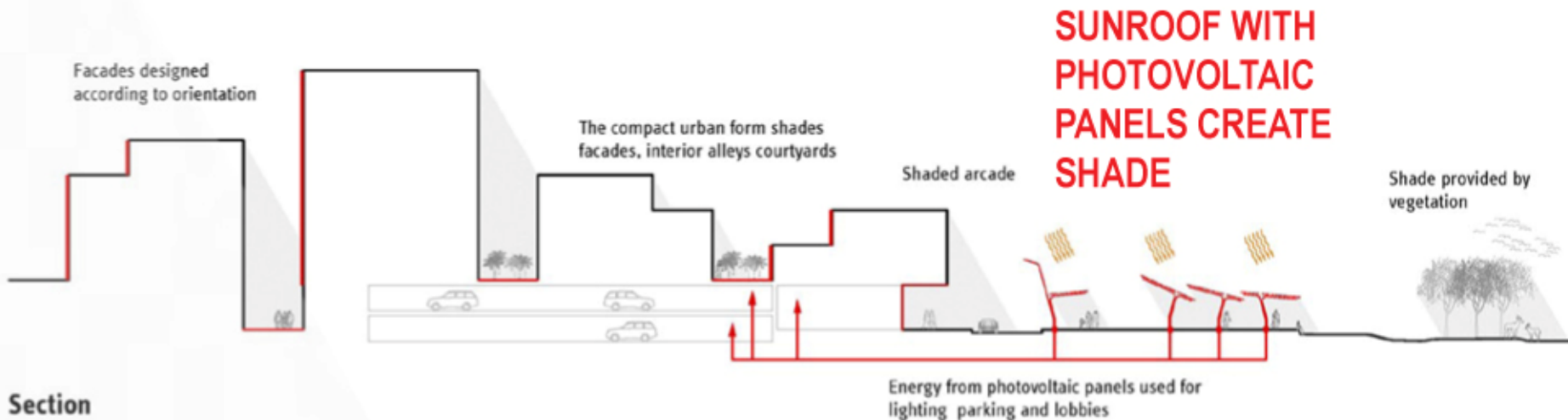
(Re) Active Urban Form : SUN

Shading Device: Compact built fabric, Arcade, Urban Sunshade, Vegetation



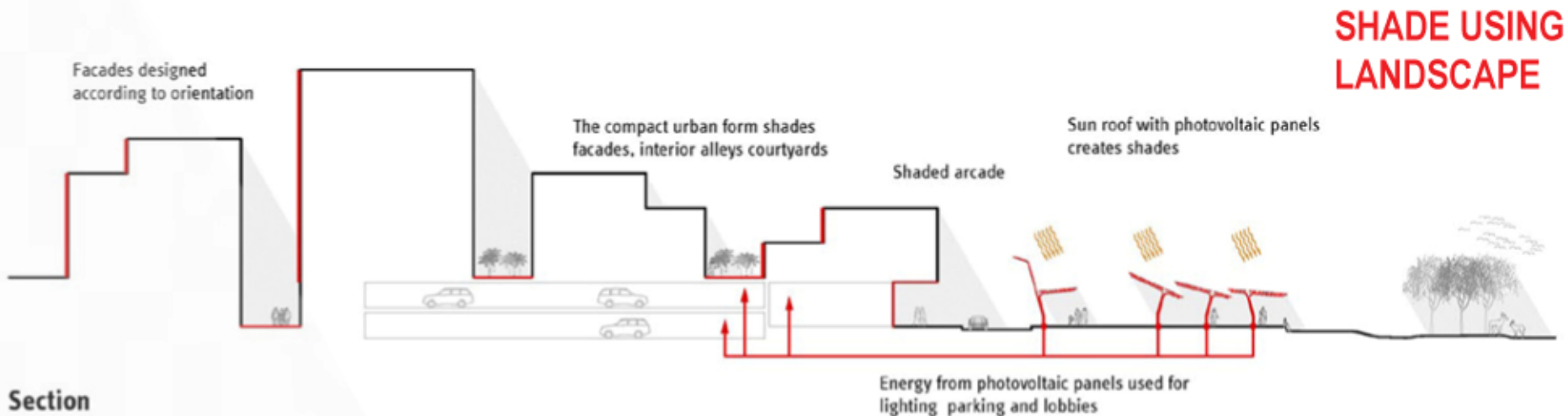
(Re) Active Urban Form : SUN

Shading Device: Compact built fabric, Arcade, Urban Sunshade, Vegetation



(Re) Active Urban Form : SUN

Shading Device: Compact built fabric, Arcade, Urban Sunshade, Vegetation









WATER & BIO-DIVERSITY





Benefiting from Existing Humidity
Strips positioned to preserve existing water

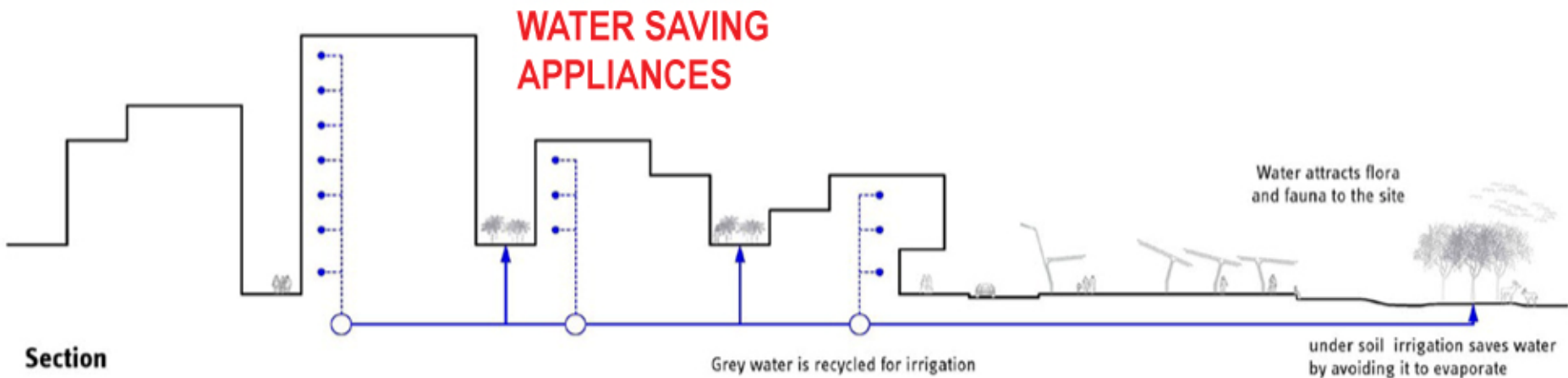


Humidity Map



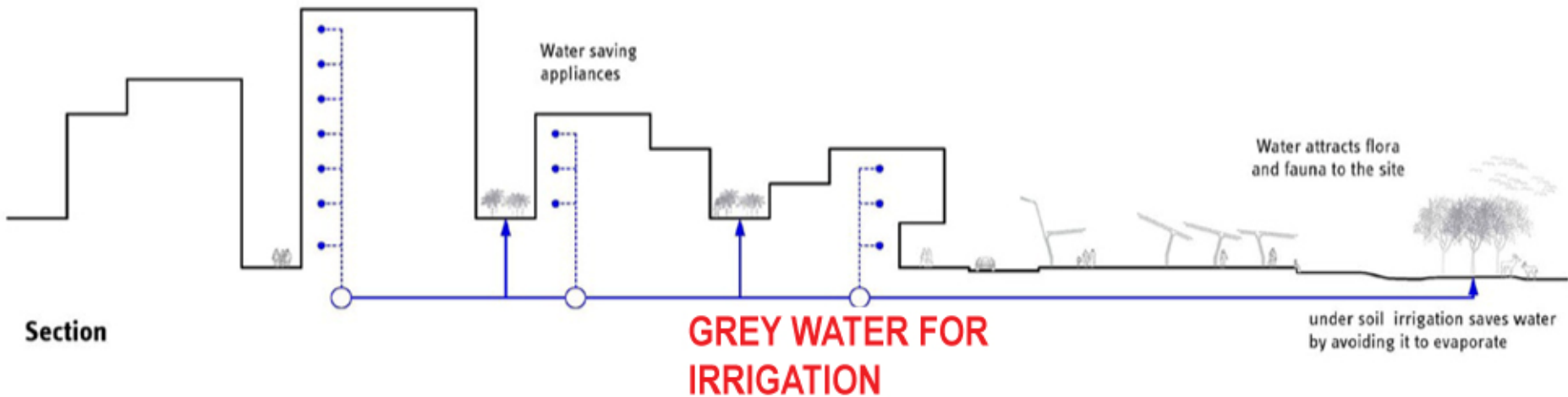
(Re) Active Urban Form : WATER & BIODIVERSITY

Water saving: Grey water recycling, usage reduction, irrigation techniques



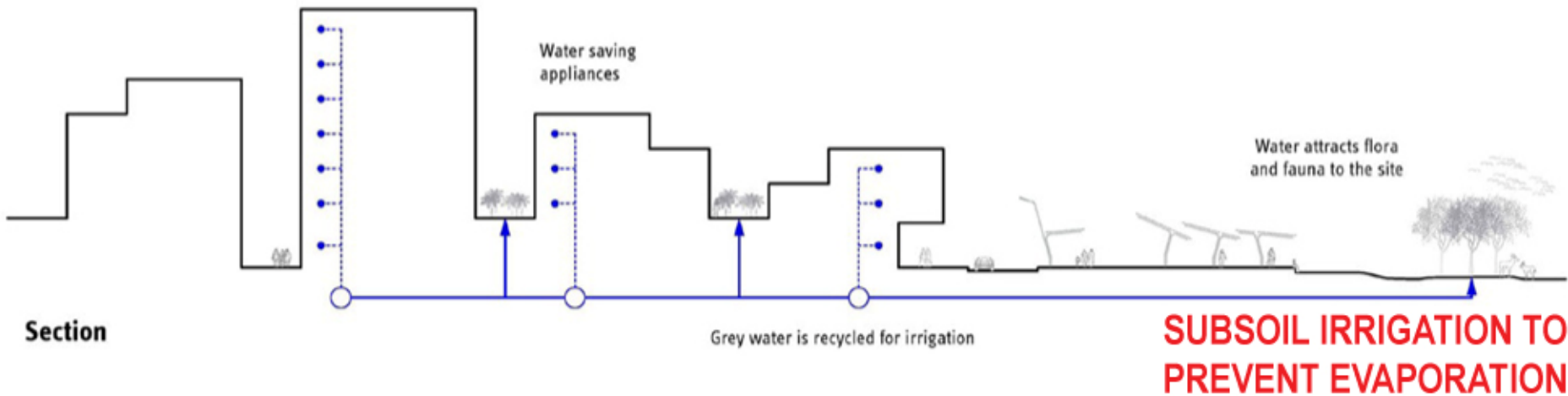
(Re) Active Urban Form : WATER & BIODIVERSITY

Water saving: Grey water recycling, usage reduction, irrigation techniques



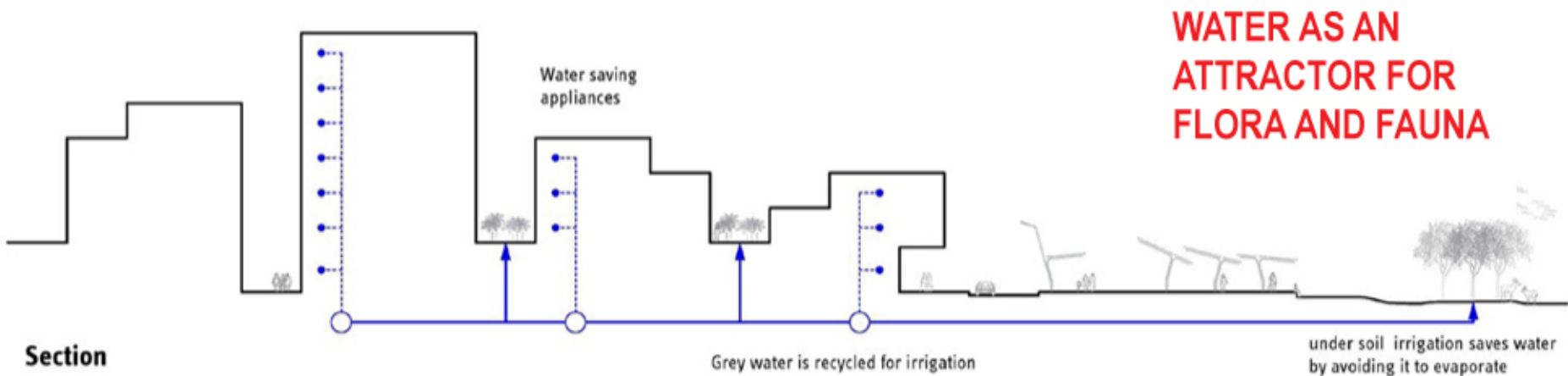
(Re) Active Urban Form : WATER & BIODIVERSITY

Water saving: Grey water recycling, usage reduction, irrigation techniques



(Re) Active Urban Form : WATER & BIODIVERSITY

Water saving: Grey water recycling, usage reduction, irrigation techniques



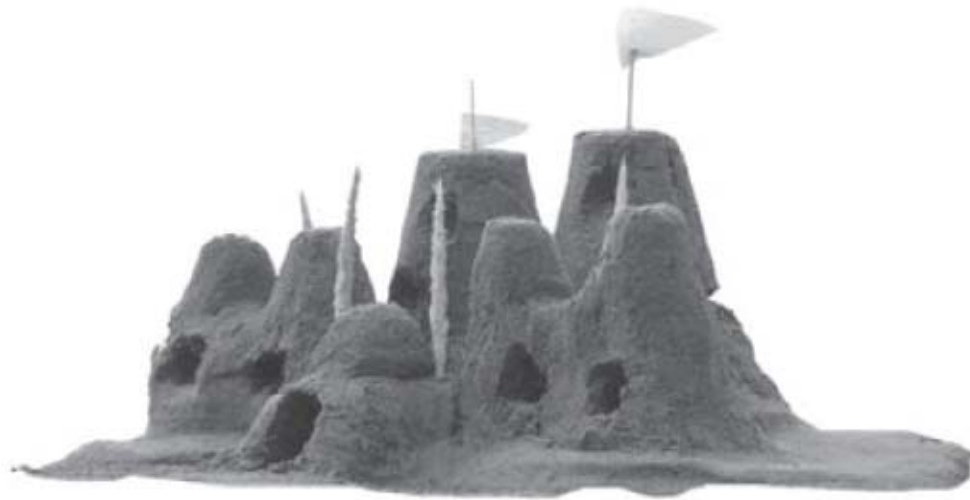








SOIL

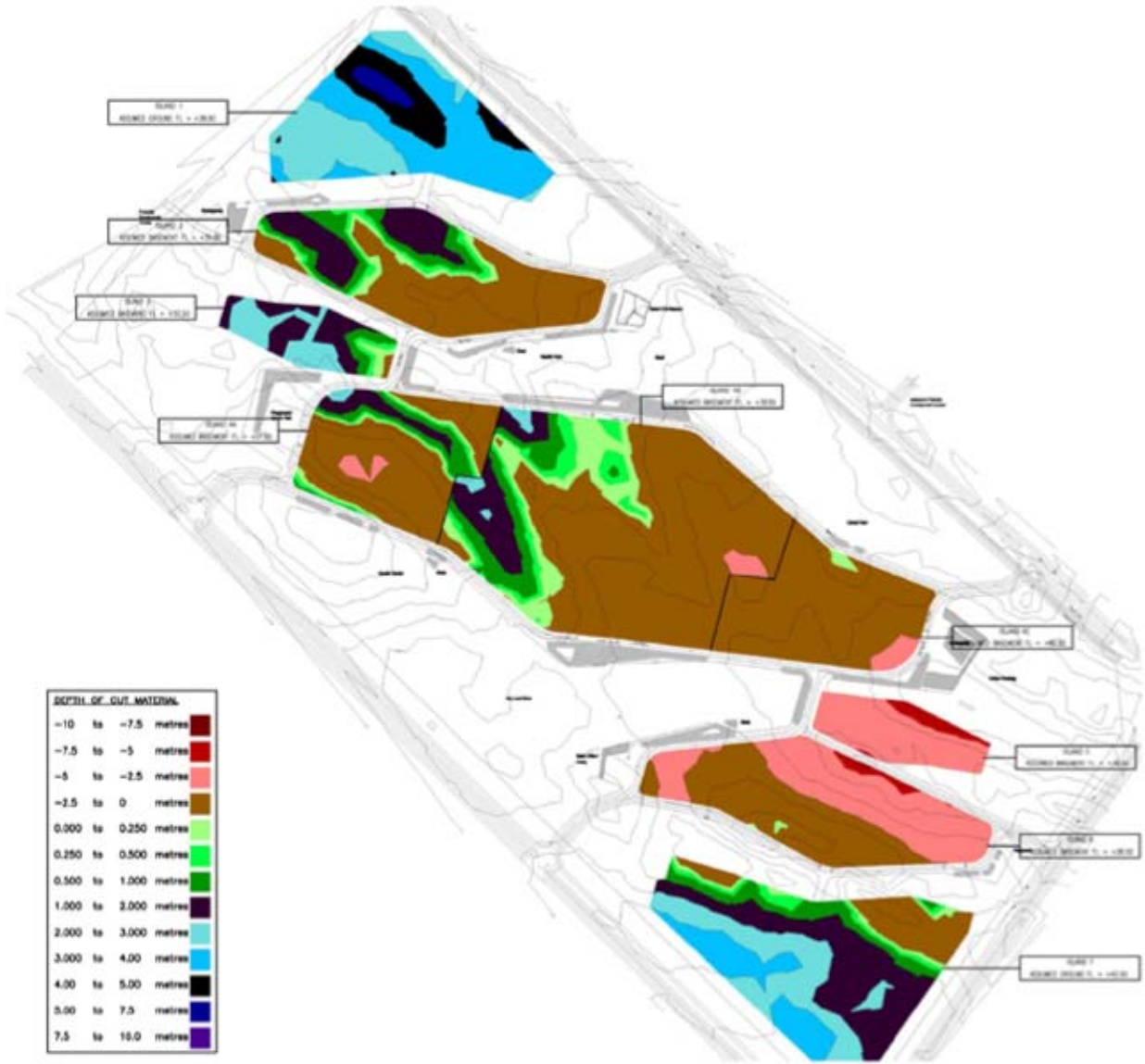




Integration in the Dunescape
 Strips shaped to recall a dunescape



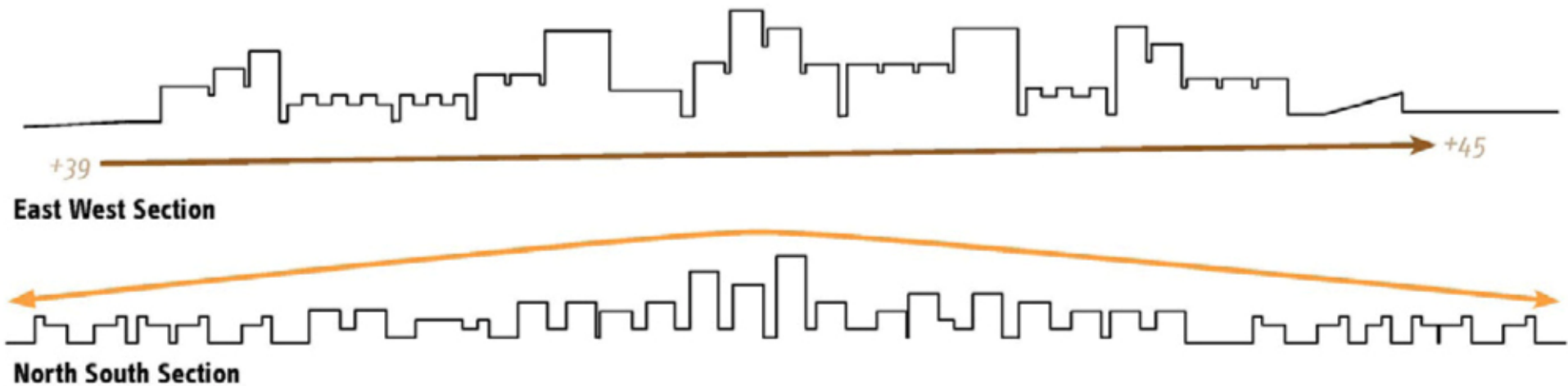
Dune Map

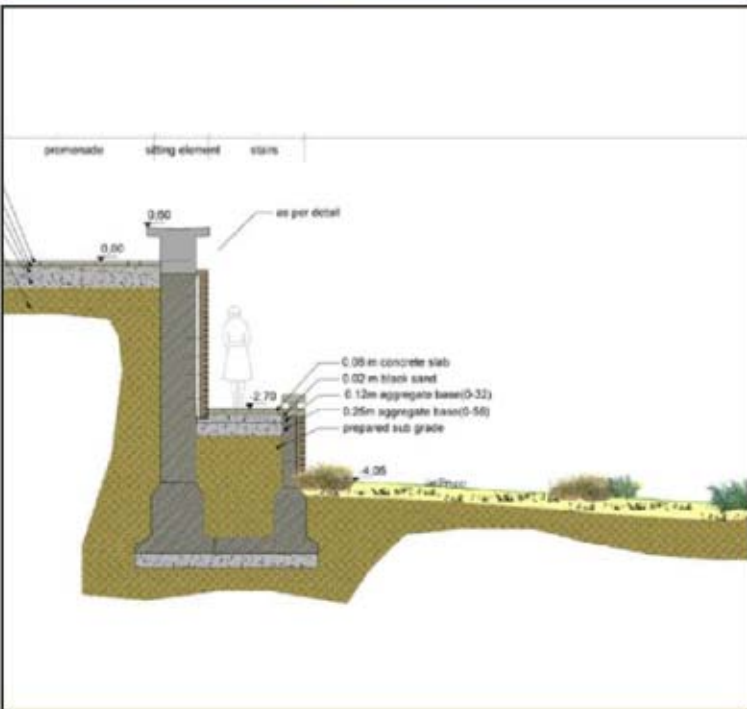


Active Urban Form : Soil

(Re) Active Urban Form : TOPOGRAPHY

Massing follows the terrain to minimize excavation









ENERGY

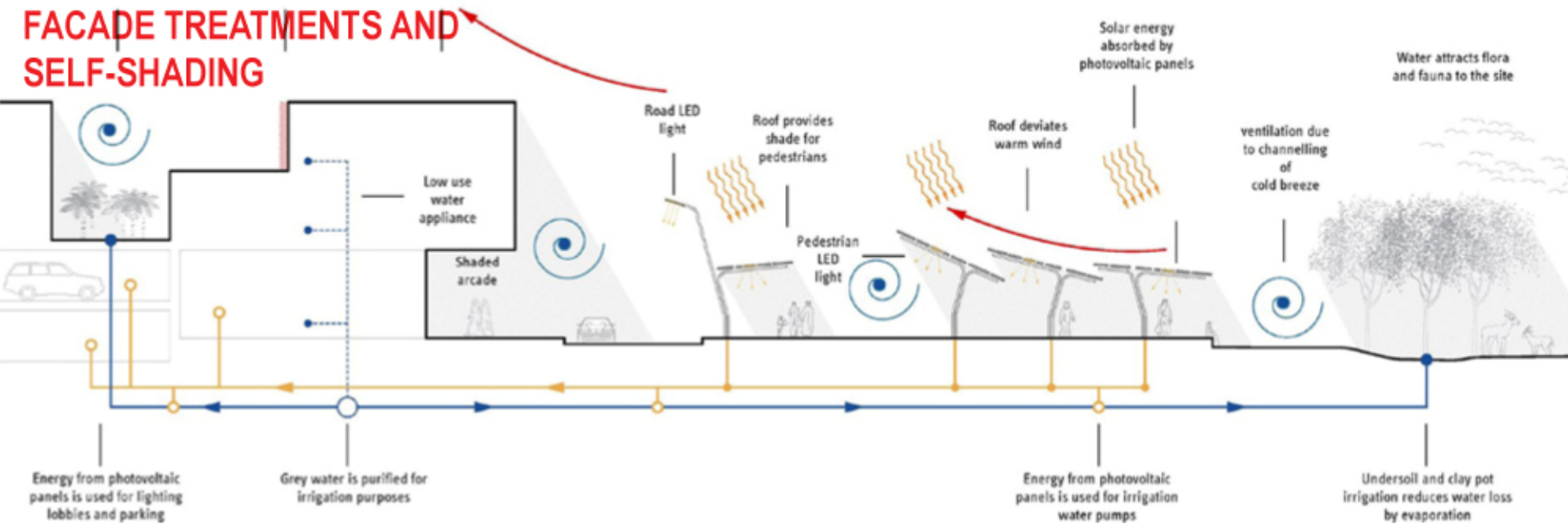




(Re) Active Urban Form : ENERGY

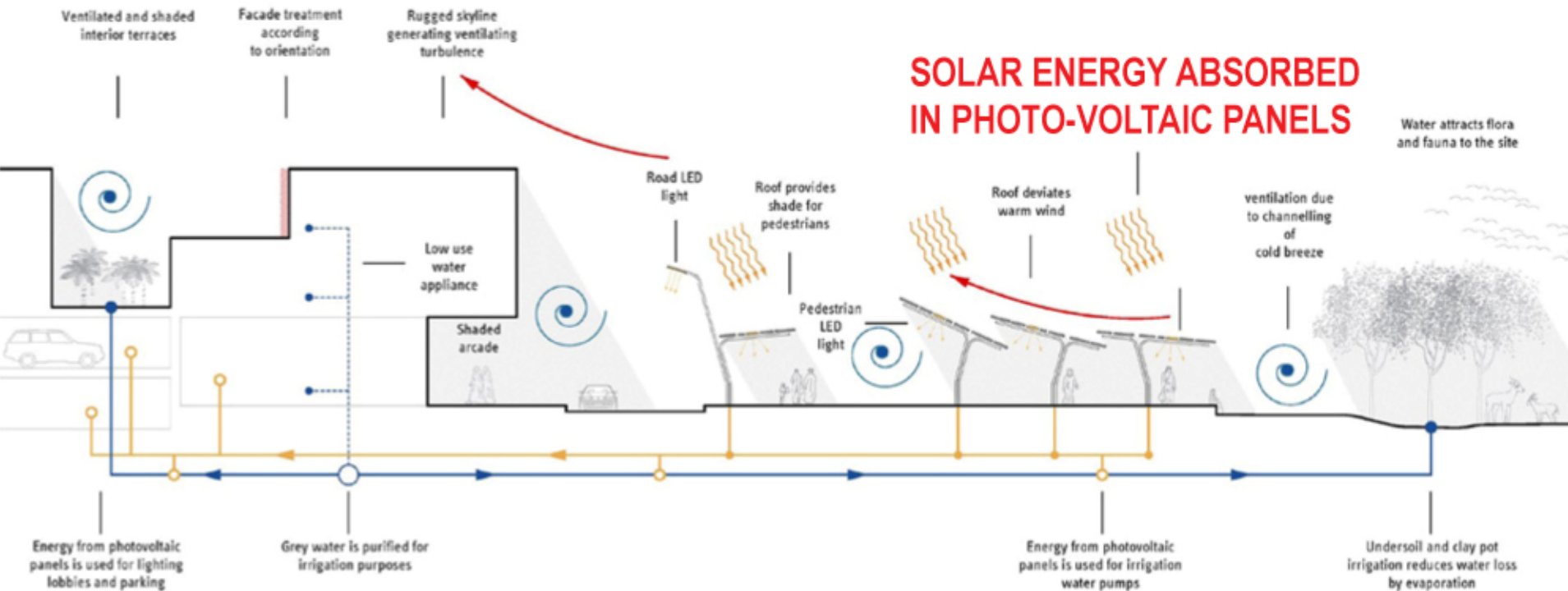
Devices: Photovoltaic panels, LED lighting systems, Dynamic light dimming

REDUCTION OF BUILDING ENERGY USAGE BY PROVIDING FACADE TREATMENTS AND SELF-SHADING



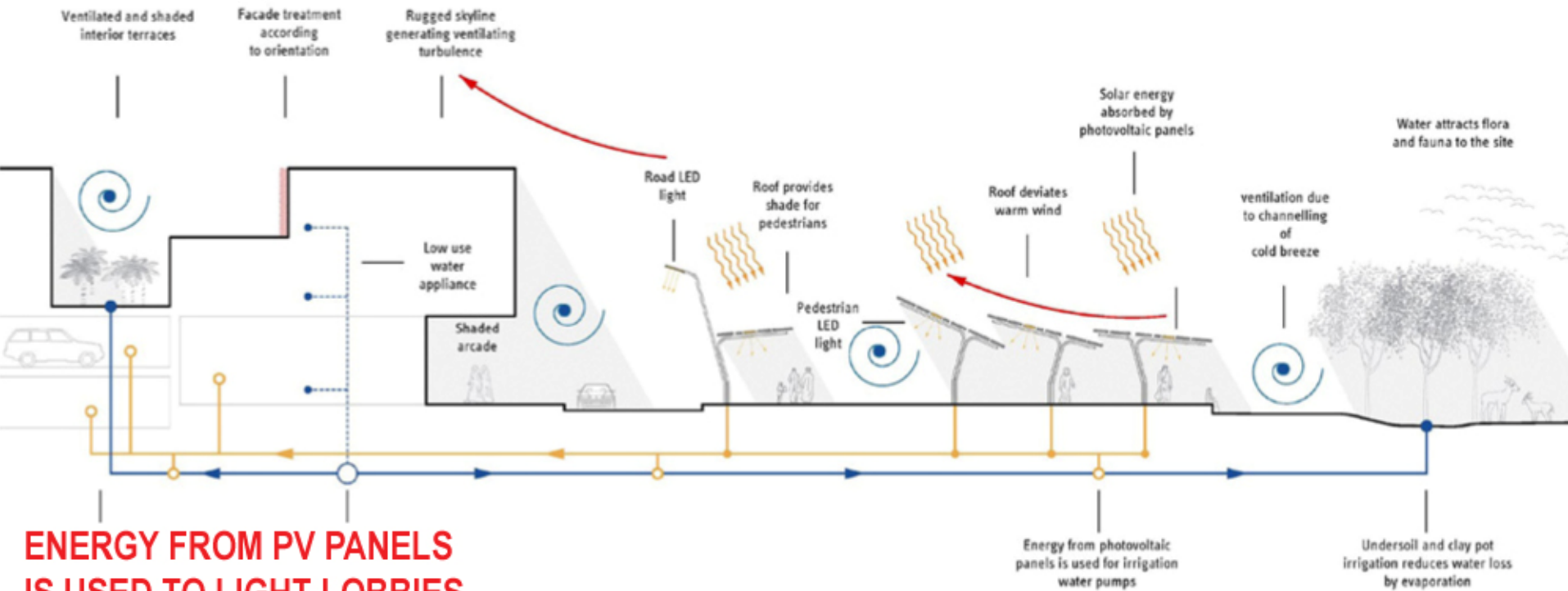
(Re) Active Urban Form : ENERGY

Devices: Photovoltaic panels, LED lighting systems, Dynamic light dimming



(Re) Active Urban Form : ENERGY

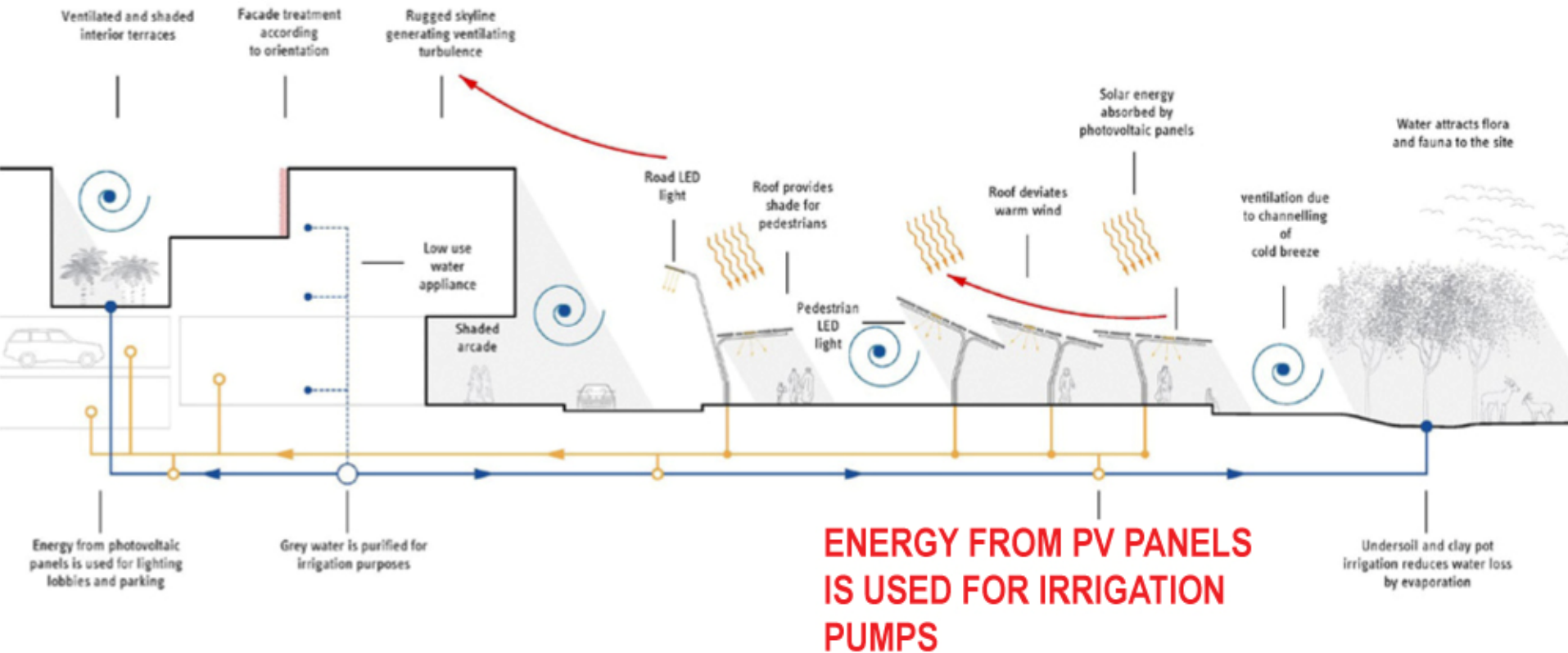
Devices: Photovoltaic panels, LED lighting systems, Dynamic light dimming

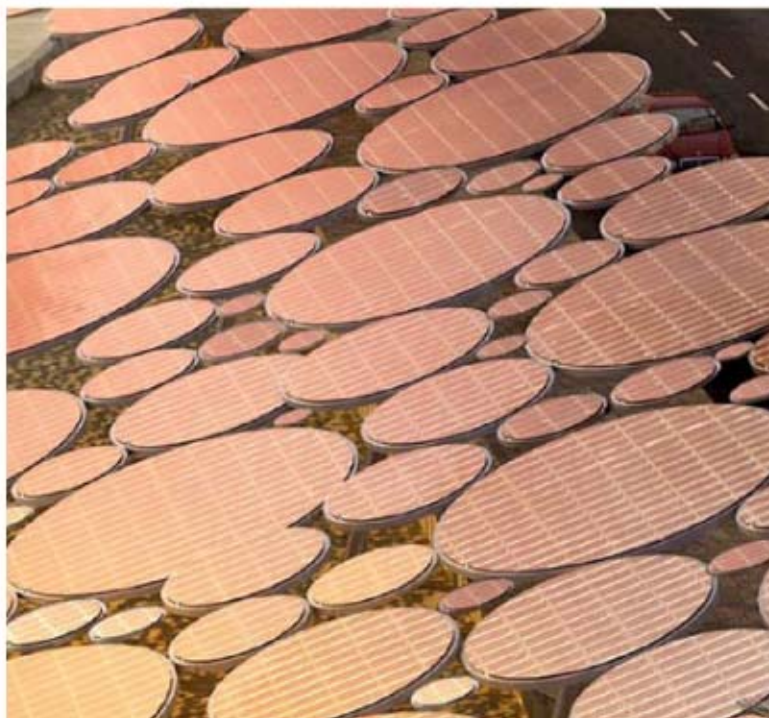
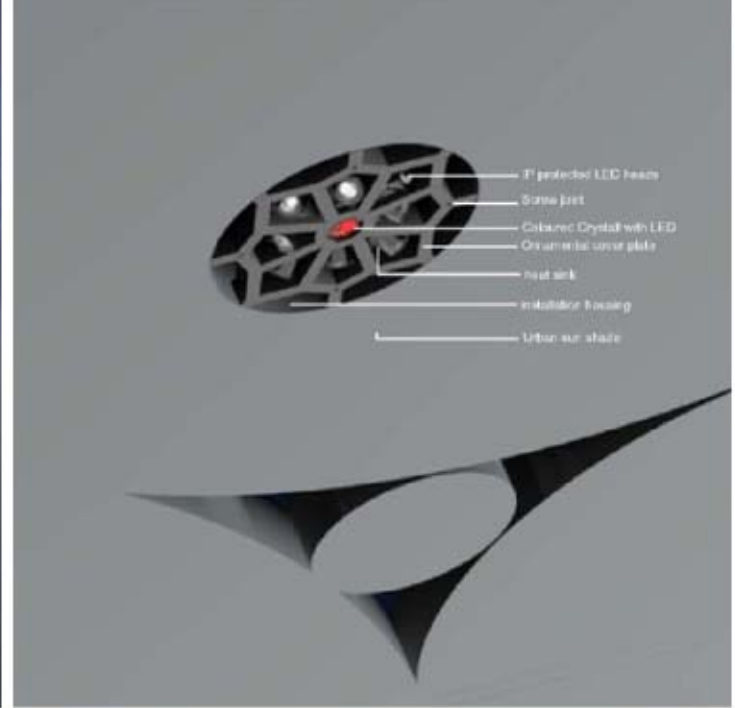


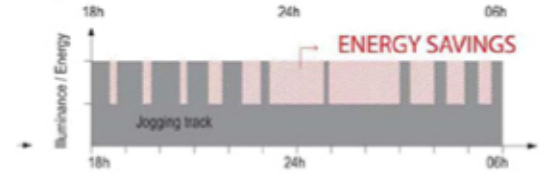
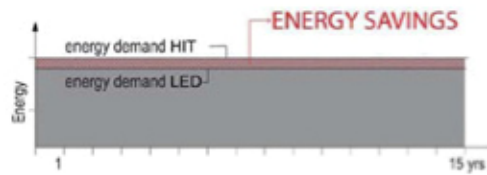
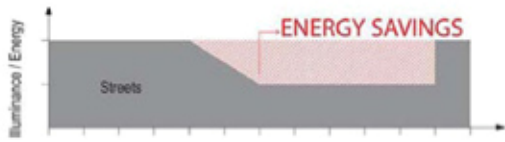
ENERGY FROM PV PANELS IS USED TO LIGHT LOBBIES AND PARKING

(Re) Active Urban Form : ENERGY

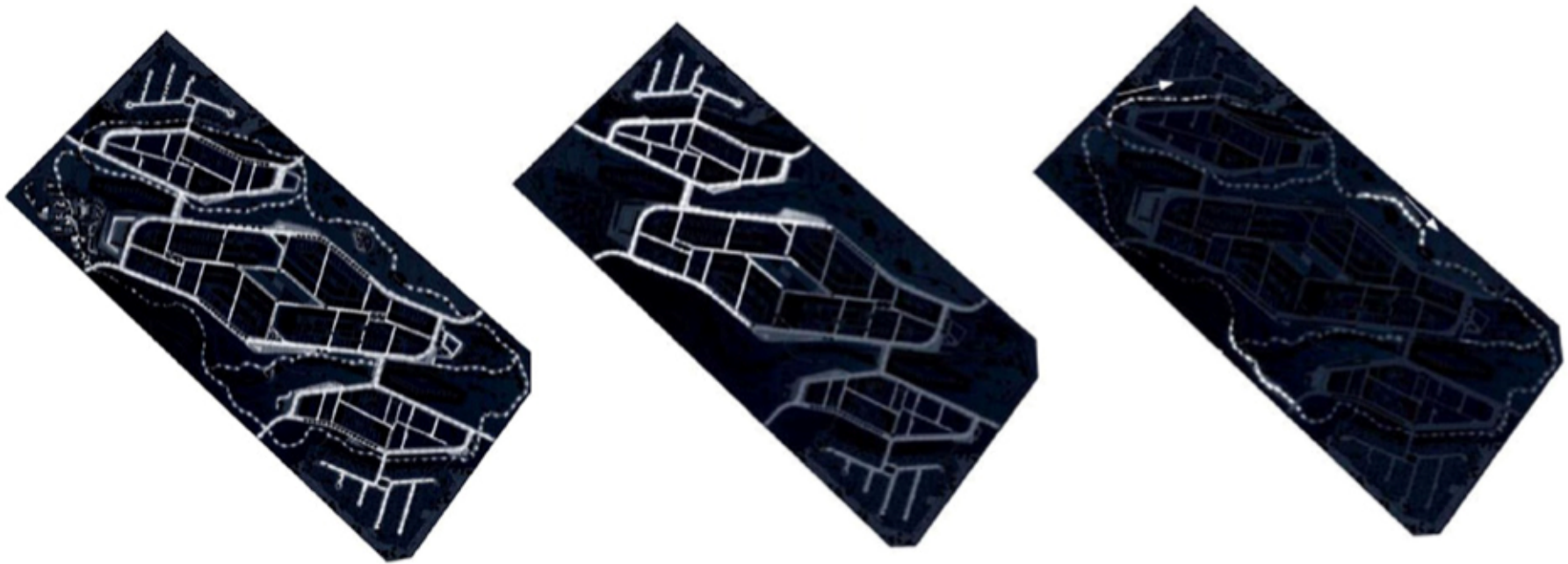
Devices: Photovoltaic panels, LED lighting systems, Dynamic light dimming





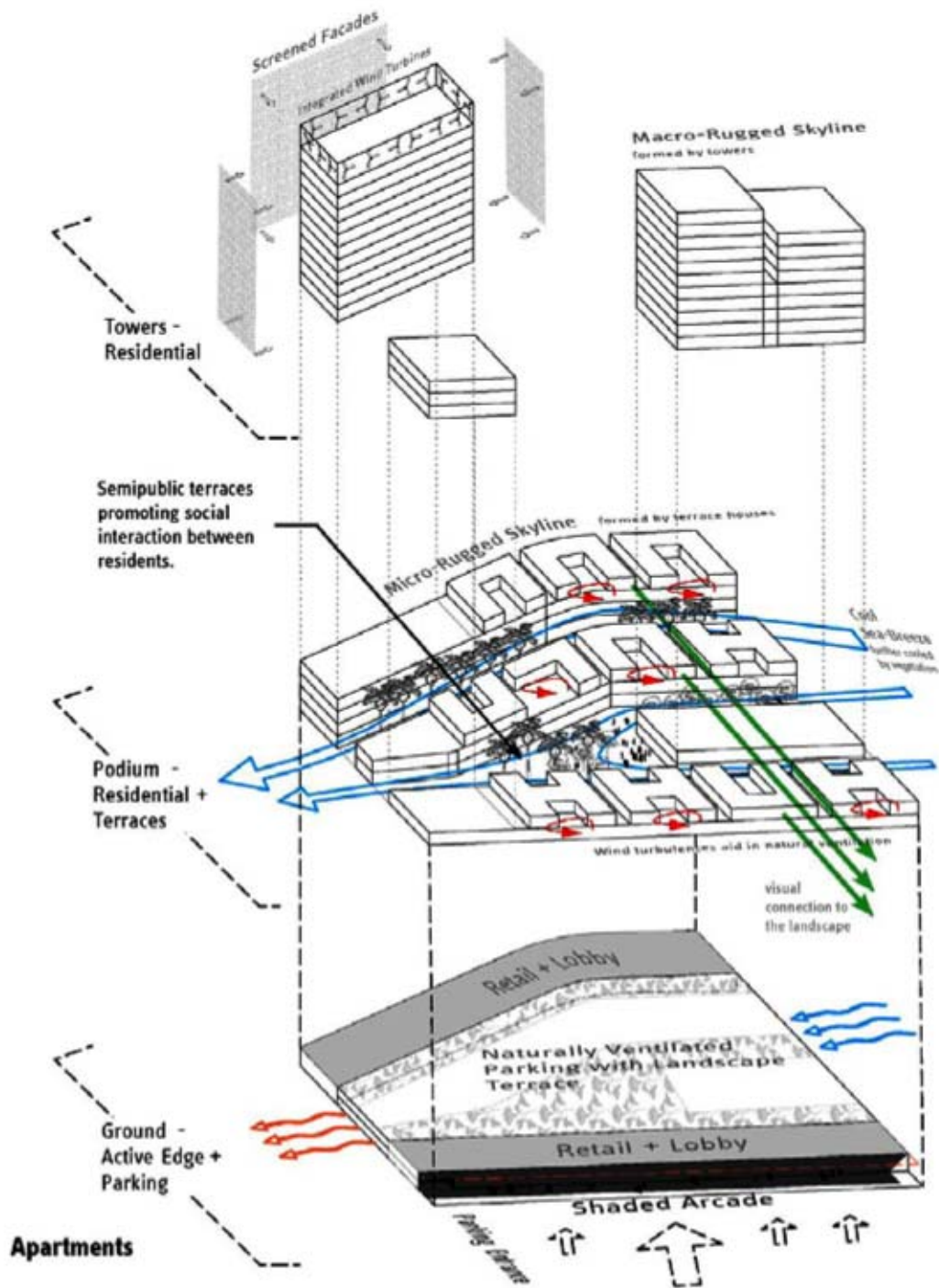


Night Lighting Strategy



CLIMATE REACTIVE LIVING





Apartment

Ground - Active Edge + Parking

Podium - Residential + Terraces

Semipublic terraces promoting social interaction between residents.

Towers - Residential

Macro-Rugged Skyline
formed by towers

Micro-Rugged Skyline
formed by terrace houses

Wind turbulence aid in natural ventilation

visual connection to the landscape

Cool Deck/terrace surfaces cooled by vegetation

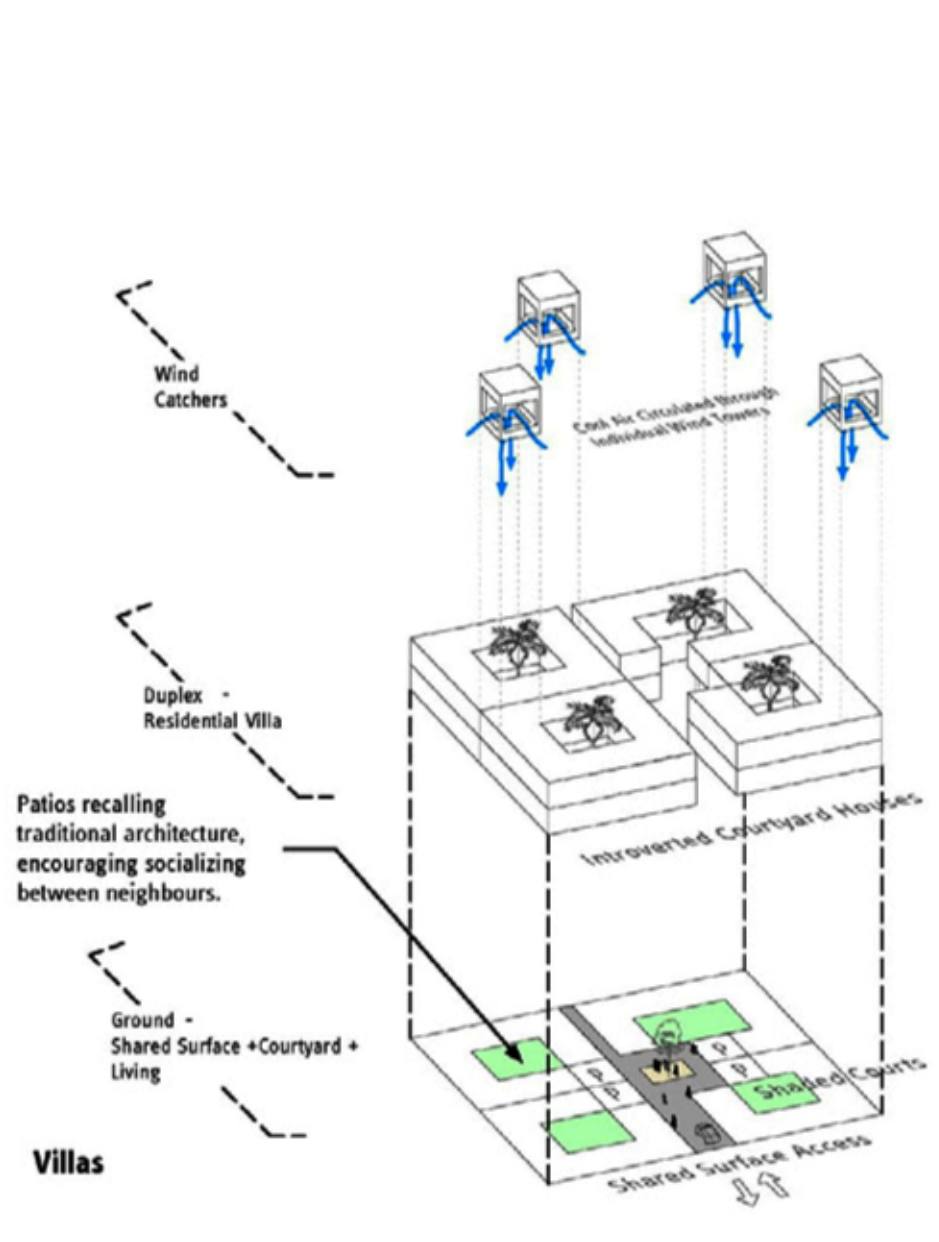
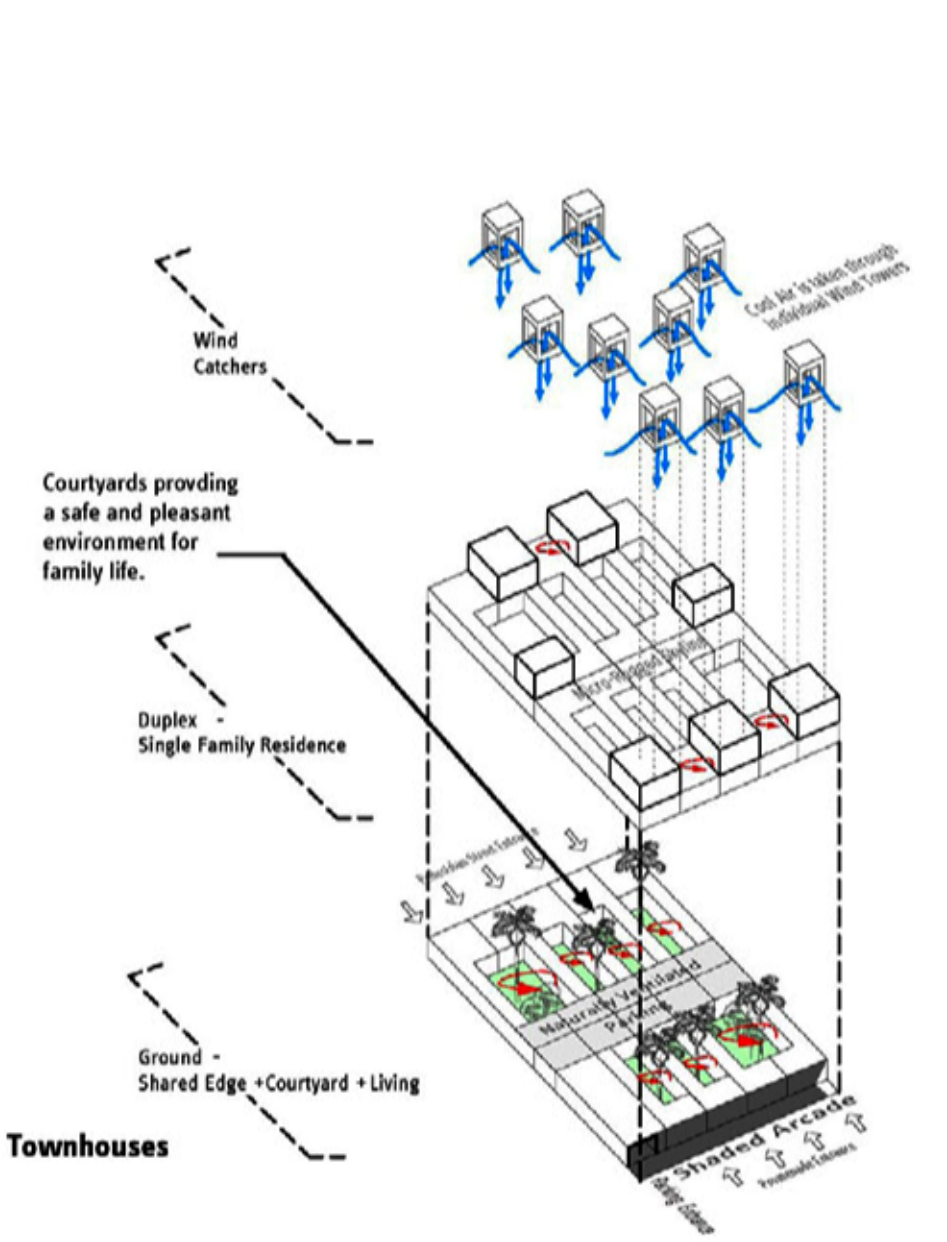
Retail + Lobby

Naturally Ventilated Parking with Landscape Terrace

Retail + Lobby

Shaded Arcade

Energy Source

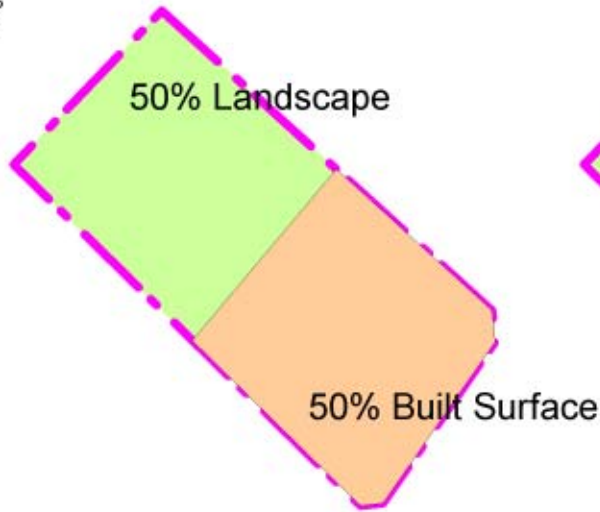




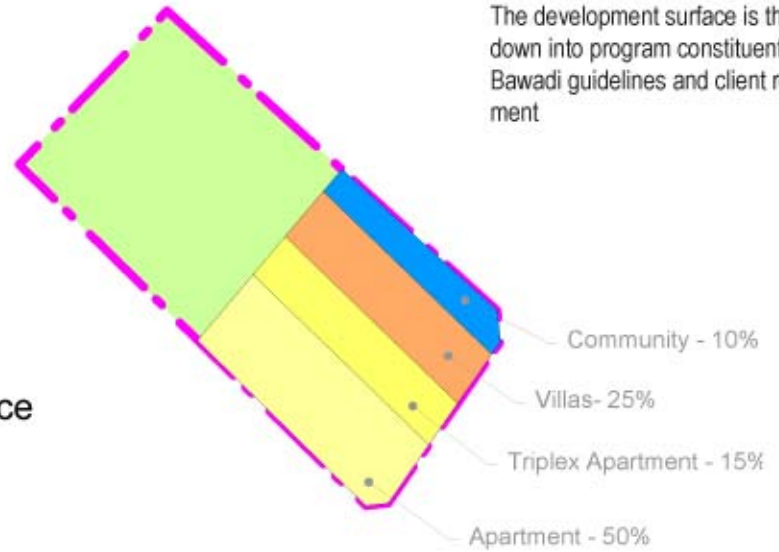
SOCIAL INTERACTION



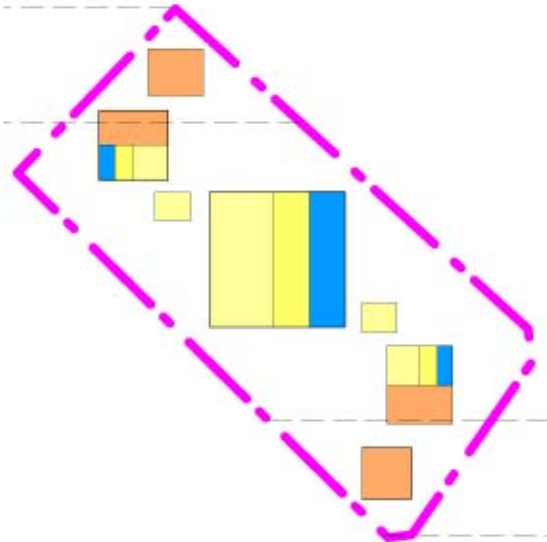
Programmatically the master plan is split into 50% open space and 50% development.



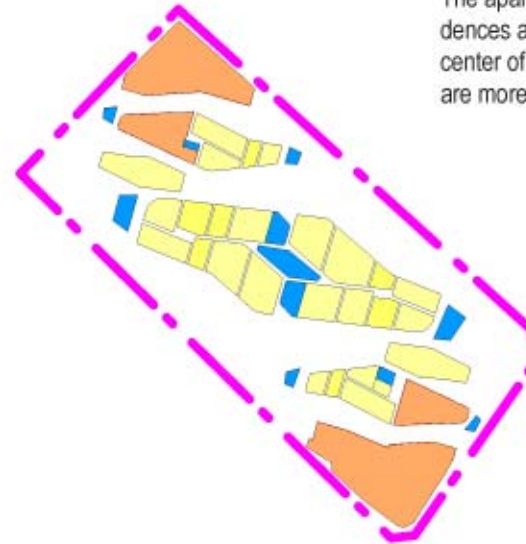
The development surface is then broken down into program constituents as per Bawadi guidelines and client requirement



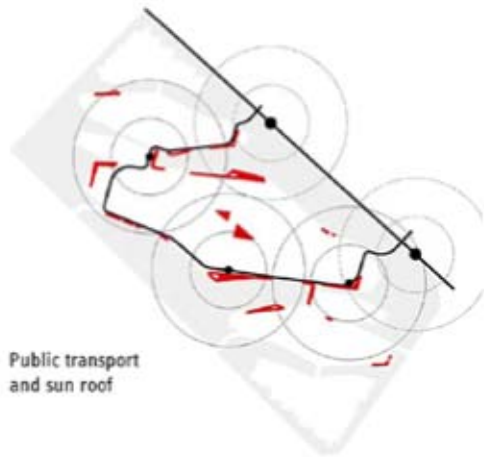
The program mix and proportion is maintained in all the major islands to create a rich social and sustainable fabric.



The apartments and high density residences are concentrated towards the center of the development while villas are more secluded to maintain privacy.



Public transport
and sun roof



Pedestrian surface



Jogging path and
Cycling track



Generators of Social Interaction







Treasures

Time

NHAMS

XERITOWN URBAN PLAN



Plan
0m 100 200m

“Xeritown”

A climate responsive Urban Habitation

