# LAGI

LAND ART GENERATOR INITIATIVE

Fractal geometry is a field that mixes art with mathematics to demonstrate that equations are more than just a collection of numbers. What makes fractals even more interesting is that they are the best existing mathematical descriptions of many natural forms, such as coastlines, mountains or parts of living organisms etc.

The inspiration from fractals for the LAGI project came not only because they generated interesting geometries or patterns but also gave a fundamental advantage of expanding & increasing a surface area of a form.
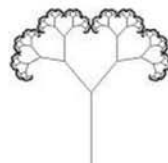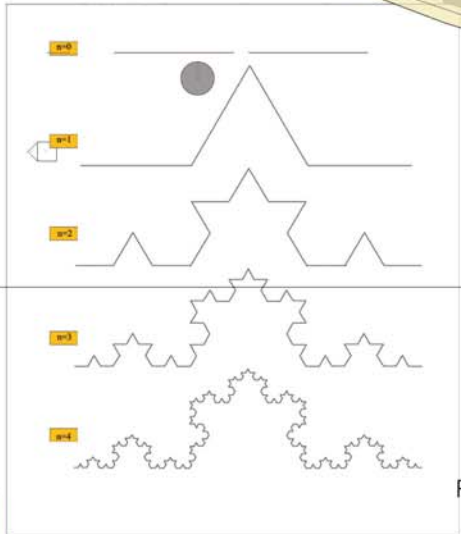
FRACTAL GEOMETRIES

FRACTALS IN NATURE
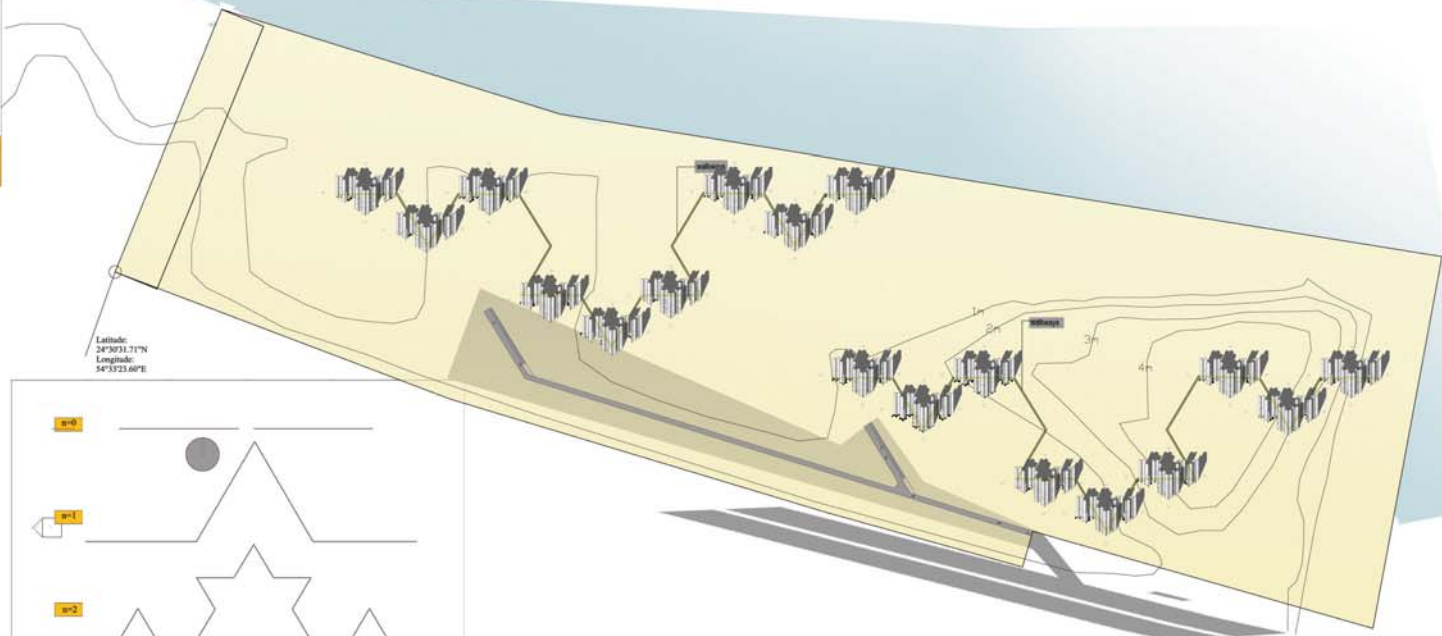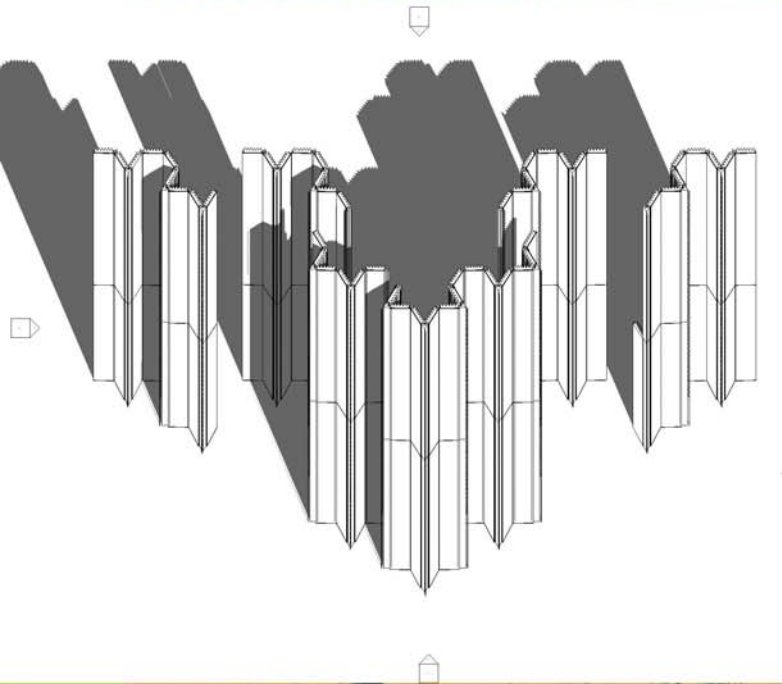
Latitude:
24°30'31.71"N
Longitude:
54°33'23.60"E

n=0
n=1
n=2
n=3
n=4

SITE PLAN

FRACTAL GEOMETRIES TO INCREASE PERIMITER

inspiration

LAG

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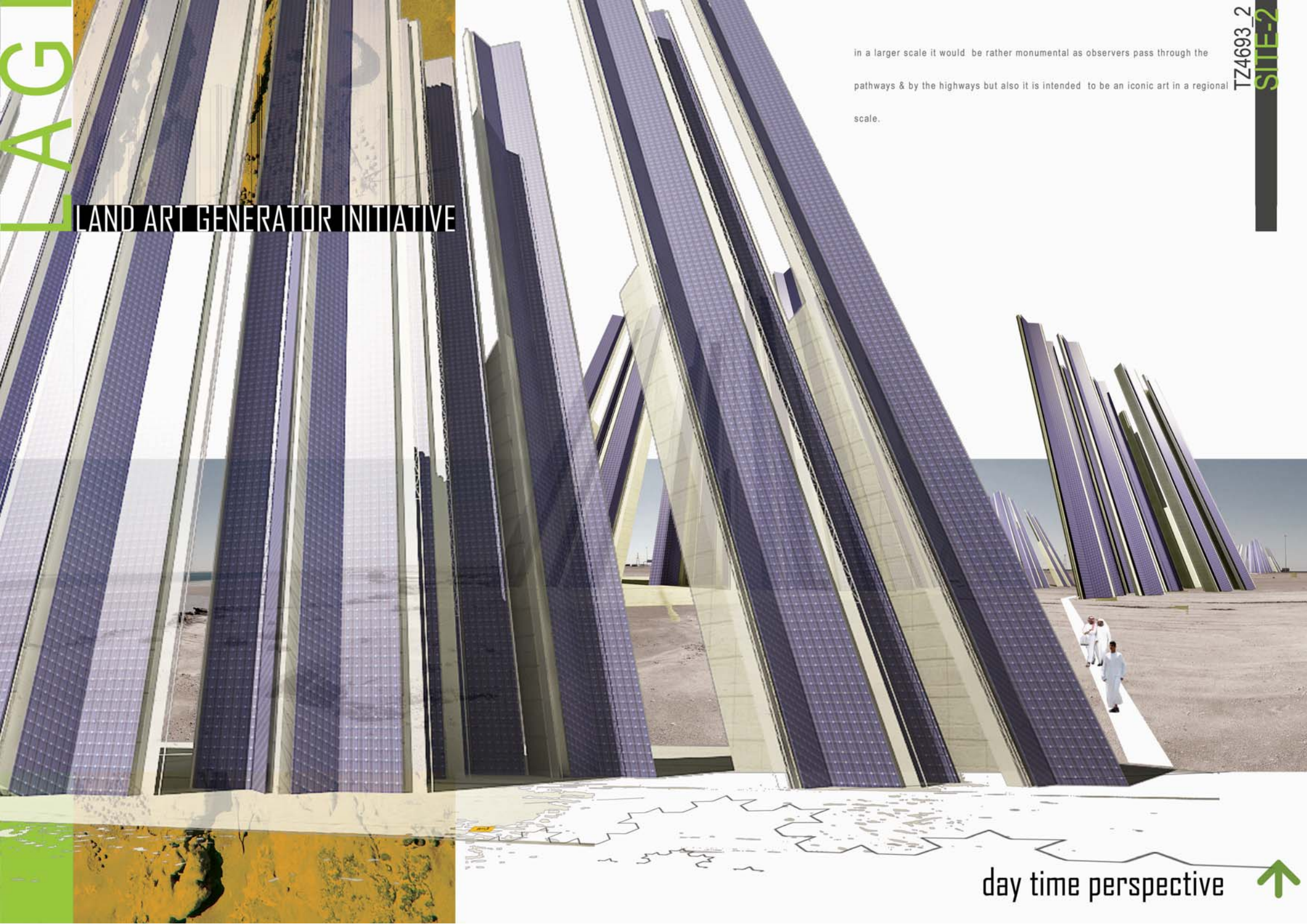
day time perspective

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It would be a kind of art that gazes towards science while at the same time in retrospective represents technology & science through a form of art. The pylons would be oriented to maximize efficiency by properly adjusting each photovoltaic panel to an optimum angle & also by eliminating segments of concrete panels that fall into shadow zones. The total master plan would also be based on fractals as pathways; landscaping etc. can also follow the same geometric principles.

During night time these concrete inclined pylons become illuminated and would give an interesting silhouette .

night time perspective ↑

using fractal geometries in planning & organization of inclined pylon like concrete

structures which would support photo voltaic panels would not only generate more

electricity than a non fractal linear arrangement but also become contextual to the

coastline of the site, increase the structural stiffness (as the concrete pylons would

form together a folded plate structure), represent natures microcosm in blow-up &

celebrate technology. In this case the diagrams used in LAGI is a fractal form

usually called "The Koch snowflake/star"

LAGI

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pre cast,pre-stressed concrete panels

maintainance ladder

adjustable base for pv cells

246'-7½" [75.17]

pre cast,pre-stressed concrete panels

post tensioned tendons

maintainace ladder

post tensioned tendons

pv cell panel

type-a

pre cast,pre-stressed
concrete
conduit carrier & poles

electrical conduits

type-b

pre cast,pre-stressed
concrete
conduit carrier & poles

electrical conduits

pre cast,pre-stressed concrete panels

adjustable base for pv cells

electrical conduits

2'-0" [0.61]

in-situ concrete base support

7'-9" [2.36]

construction ↑