WALKING FUTURE

My project (Walking Future) attempts to embody Abu Dhabi’s history, culture and image. At the same time, it emphasises the awareness of Green Electricity. Therefore, the project will have three sources of alternative electricity production.

First, we will extract solar energy (solar panels), thermal energy (from hot air and from the ground), and the third electricity supply will be frictional energy (friction from the roads, sidewalks and walking paths in the park).

When it comes to organisation, the space will be divided into the same theme of 3’s. This same space represents the past, the present and the future, and simultaneously the three distinct natural differences that coexist in Abu Dhabi’s environment, that being the desert, the green spaces and the water. And this should be seen throughout the design of the space, the division between three different environments, but all connected through an Arabic modern design. To complement it all, it also represents Abu Dhabi’s cultural image with designs inspired by the Arabic culture and religion and a special design to celebrate technology, religion and a healthy lifestyle. Cultural wise the space inherits several gathering spaces. The space has all so been thought to be utilized as an open technological exposition place with one of the spaces is enclosed to offer a little more privacy, and it can be use as required. This space can all so be used for prayer or meditation

The working space has a total width of 300m, and a north-west width of 89m. The south-east width is approximately 70m, and the space is divided into five different compartments, two of which are the open-space areas OS-01 with a total area of 10.800 square meters, and OS-02 with a total of 8500 square meters, and the three remaining spaces  the sidewalks and the roads. These will also be redesigned to generate thermal and frictional electricity, utilising the mass movement and the heat source that they will acquire, and they have a total of 9000 square meters. total area of the combined spaces is 28.300 square meters.

Steel, for structure; glass; wood flooring on expo location; static and thermal electricity converters, and synthetic fabric on the ceiling are some of the materials to be used.

When it comes to the solar panels, the electricity production will be 300 watts per panel. The space should have approximately 50 panels, giving it a total of 15.000 watts. With the solar panels alone, it should generate 432 million watts during 8 hours of good sun. And it should generate 157,680,000,000 watts per year.

It should also be noted that the solar panels track solar movement throughout the day for better heat caption.

The inner side of the structural system (cover columns and beams), columns and beams, are electricity generators using thermal technology.

Since this is New Age technology, information about the amount of energy it generates is very scarce; therefore, I am unable to provide an accurate number. However, I can stipulate that it is possible to generate 15-30 watts/litre. Each pillar should hold the minimum amount of liquid of 13 cubic meters; therefore, it is safe to say that each pillar should generate 17.000-33.000 watts. Considering that we have 10 pillars, there should be a total of 330.000 watts generated from the pillars alone. There will be additional electricity created by the beams; they can hold approximately 5 gallons of water which should result in an additional 7500-9500 Watts. In total we have 42500W that would translate into 9,792,000,000‬Watts operation a day for 8 hours of daily operation and produce 3,574,080,000,000‬ Watts a year.

The third source of electricity is frictional electricity, generated by the cars on the roads and by the people walking on the park floor and the sidewalks. The amount of electricity generated will vary according to the movement flow within the space, but each frictional mechanism should create approximately 1-2 Watts from people’s weight and it should generate 10 Watts from cars. Therefore, the daily energy production will depend on the car and pedestrian circulation within the space.

The design should cost an approximate amount of $1500,00 per square meter. In total $42.450.000,00 (forty-two million, four hundred and fifty thousand dollars).