SOLAR ENERGY AS AN ENHANCEMENT TO FUNCTIONAL REQUIREMENT IN LANDSCAPE ARCHITECTURE

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ABSTRACT
A solar tree is a sculpturesque street light, comprising fan branches decorated with solar lamps, each one consisting of thirty six solar cells. Its concept typifies a holistic model that marries both form and function. Beneficial for aesthetics and lighting in parking lots and urban landscapes. Often times, most landscape sculptures found in Nigerian roundabouts are aesthetically pleasing, but dissociative and deficient in their functional requirement for dusk to dawn lighting. This paper comparatively evaluates the weak imitations and limitations of the former golf course roundabout in Jos, Plateau State, characterised by a circular array of convex, divergent branches and a dimly lit nucleus that is irregular in its power supply owing to its dependence on hydro electricity. The paper remodels the sculpture according to the conceptual functional principles entrenched in the design of the solar tree and recommends the integration of solar energy into the lighting system of the sculptures, because illuminating roundabouts using solar energy is more holistic and consistent due to its inexhaustive source.

Keywords: functional, landscape, lighting, sculpture, solar

INTRODUCTION

Sculpture and landscape are common features of roundabouts. Encarta Encyclopedia defines sculpture as a three dimensional work of art especially by carving, modeling or casting and landscape as a visually distinct expanse of scenery of a particular type, especially as much as can be seen by the eye. Certainly, sculptures portend an attribute of beauty; they are symbolic and iconic which qualify them as good features for urban scenery. Nonetheless, without lighting they vanish into the dusk like the sun, only to rise again with the dawn.

It is commonplace to see sculpture replaced with another sculpture in Jos Plateau State, without remarkable improvement on the replaced sculpture. For example, the sculpture of the Youth Corper interpreted by many as a symbol of hard work, was replaced with the sculpture of a cactus; the Golfer which symbolized a prestigious urban feature was recently replaced with an abstraction, and as for the sculpture depicting commerce - the biggest sculpture located at the hub of Jos city, what replaces it after its demolition remains uncertain.

Perhaps, if they encompassed more function than passive beauty, they may not have been demolished. In trying to address this precedence, post modern sculptors who in their creativity tried to realize more than symbolic meaning to sculpture, introduced lighting effects for delightful purposes. Recently, a Welsh designer Ross Lovegrove designed the solar tree, a suitable street light sculpture for parking lots and landscapes. It emerged with an entirely different concept, marrying form and function in the most auspicious way.

According to Haskoning (2004), aesthetics is a starting point for architects and designers. Giving shape to our environment can of course not just be a matter of functionality and economic considerations. People like to see more than just a simple sum of rational values. As the Roman Master builder said years ago: true architecture is characterized by a balance between form, function and construction. A building can be more than just accommodation, a bridge, more than just a link between two banks and an engineering structure more than just an expression of culture royal. The writer appreciates that any veritable structure should encompass much more than function, but beauty as well. Similarly, sculpture is meant to be more than just an icon of beauty or a symbol. If functionality as defined by the Encarta Encyclopedia dictionary is the degree of helpfulness, usefulness, handiness, value, worth or scope of something and aesthetics as the outward appearance of something especially in terms of how pleasing, then it will