

ABSTRACT

Climate change is a clear indication that humanity's innate affiliation with nature has been suppressed, and that our detrimental anthropogenic activities on the earth's natural resources and systems, have exceeded the earth's ecological capacity to cope and regenerate. This threatens environmental sustainability, which subsequently has social and economic implications.

Environmental conservation is humanity's aim towards re-affiliating its deep rootedness in nature, in order to ensure a sustainable co-existence with other species and natural systems, and thus convince responsive lifestyles, which allows humanity to match natural-resource extraction to the rate at which the earth can regenerate.

The role of environmental sustainable architecture, towards mitigating humanity's impact on global warming, still leaves a disparity between human relationships and interactions with the natural environment. The notion of a phenomenology-guided design inquiry, an application of enhanced multi-sensory experiences is identified, to re-affiliate humanity with nature and to provoke a sense of urgency for greater protection of the natural environment, through an immersive experience of enhanced human-nature interactions with nature. Furthermore, this notion is applied in the programme of eco-tourism and qualitative ecological research; the proposed site choice; the concept design approach and technical resolution of the project.

The research recognises the conservation of sensitive ecosystems such as the iSimangaliso Wetland Park in northern KwaZulu-Natal, as one of the core strategies for environmental sustainability, and its appropriateness as a site for immersed experiences with nature and the sharing of ecological knowledge for the benefit of the wider communities in South Africa and internationally.

The research proposes an environmentally responsible and contextually appropriate architectural design, for a wetland, estuary and marine conservation centre in the iSimangaliso Wetland Park. Furthermore, the programme responds to the key contextual issues concerning the park by assisting with the ecological conservation and growth, as well as the social and economic sustainability of the iSimangaliso Wetland Park and surrounding communities. This is achieved by proposing an architectural programme which functions as an interface and mediator for the key issues concerning the park, that is of research, education, tourism and community participation, through which the most concerning issue of ecological conservation occurs.