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Johannesburg climate change observatory: scale of temporality: architecture as a mediator

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Abstract:

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Scales of temporality: Architecture as a mediator

The population of the city of Gauteng is expected to double by 2055 (Landau and Gindrey, 2008), which in turn is expected to exacerbate the effects of climate change within the city of Johannesburg.

As pressure from the growing population and climate change mounts, existing open space will have to be assessed and its value will determine its function on a natural, social and economic level.
This thesis explores the distinct spatial condition of the Johannesburg ridge as a contested landscape of sensitive ecologies and cultures. These remaining fragments of ecological infrastructures within the city can manifest spaces of encounters and introduce a discussion about climate change and the future.

This dissertation investigates architecture's mediating role in the contested landscapes, both physical and psychological. In terms of the physical landscape, any architectural interventions erected on the ridge would need to act as a mediator between the sensitive ridge ecology and the temporality of its diverse multicultural user composition. Design spaces and their proposed uses would need to work towards promoting a successful balance between different modes of knowledge.

I propose a research institute located on the Melville Koppies West (MKW) ridge that will provide an interface between science and society that is accessible to the public. For the purpose of this dissertation I will call the research institute the Johannesburg Climate Change Observatory (JCCO). By creating a platform where different constituencies can overlap, new meanings can be negotiated and a cross-pollination of knowledge can thrive. I have studied the contested landscape extensively and have documented my observations through a series of interviews, photographs, mappings, sketches and physical models.

The general consensus in the scientific community is that if we do not change the way we think about climate change by the year 2045 we will reach a point of no return for our planet. The JCCO is constructed to be dismantled because of the sensitive nature of the site and as a commentary on the nature of climate change. The intervention then becomes an extension of the site, improving ecological function and extending the existing sacred landscape. This in turn preserves the evolving palimpsest that is the Melville Koppies.

As climate change affects communities all over the world the JCCO will become a critical intervention against entrenched practices that are contributing to climate change. It is a building typology that has been constructed through understanding the social dimensions of a physical phenomenon in a particular place, and is one that should be considered everywhere as each intervention of this nature needs to emerge from a similarly meaningful understanding relevant to the dynamics of different sites.

The MKW presents a unique opportunity to preserve an ancient ecological landscape, to maintain an active cultural landscape, and at the same time, by respecting both, to create a new space that could give rise to new ideas and paradigms that in turn will lead to the transformative change required to address climate change.