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01 PROJECT BRIEF

The brief reflects a response to the Tswaing Meteorite Crater [TMC], with the proposal of an architectural intervention responding to the identified needs and potential of the site.

1.1 The site

The Tswaing impact crater was created by a meteorite crashing into the earth's crust approximately 220 000 years ago.

Tswaing, meaning the Place of Salt in Setswana, is a 2000 hectare conservation area in South Africa. It is located in Tshwane, 40km northwest of the Pretoria CBD, and borders the Winterveld and Soshanguve settlements. It is one of the best-preserved impact craters in the world and the only crater that is accessible by foot right down to its centre. It is therefore a very sensitive and unique conservation area with a variety of ecosystems, a wetland, and the remains of a factory that in the past produced soda ash and salt. [Reimold, Brandt, De Jongh & Hancox, 1999:1]



Figure 1.02 Location map of the Tswaing Meteor impact Crater [TMC]



Figure 1.01 Aerial view of the TMC [Adapted from the image accessed on [http://rst.gsfc.nasa.gov/Sect18/Sect18_6.html accessed 24.02.2009]



1.2 Problem setting

Architecture

Architecture is the art of creating places where human beings can dwell on earth beneath the sky [Norberg-Schulz, 1985:23]. Architecture becomes the stage upon which the story of each individual is acted out. It is therefore of fundamental importance to comprehend the influence that architecture as an environment has on the user.

Technology as a threat to public spaces

With the rapid advancement of technologies such as the Internet, the need to interact with people and places to obtain information is decreasing dramatically. Consequently, the question is raised as to what architecture's responsibility towards the sustainability and livelihood of public spaces – such as memorials and museums – will be in the future.

Memorial as building typology

Many past events go unmarked and unremembered, and eventually lose their significance. In modern day society, memorials are constructed 'serving to preserve the memory of the dead or a past event; serving as a remembrance' [Anderson,2007]. Contemporary memorials seem to focus on capturing and freezing memory, rarely informing the visitor of the historic context or its present and future relevance. According to Kieran Long [2007:75], 'minimalism has become the accepted, culturally sensitive way of commemorating loss. But does it communicate anything more than silence?'

Selected site

South Africa's natural and cultural heritage resources are continually being threatened as a result of unsustainable development, urban encroachment, and a lack of urgency to protect habitats, species, heritage sites and values [Bewsher, 2005:2].

The Tswaing meteor crater [TMC] represents a conservation area of irreplaceable value. The site is currently in desperate need of an informative intervention that would enable various users and management systems to protect the heritage and significance of the site for present and future generations. Limited sources are available regarding the history of the site, and the related oral traditions are rapidly fading.

1.3 Aims and objectives

The aims and objectives of the proposal are as follows:

To investigate the potential integration of the intangible dimension [of meaning, memory, atmosphere and lived experience] into the tangible component [landscape and architecture] by exploring the nature of the memorial and museum in contemporary society, and evaluating its success and possible future in the African context with the integration of environmental, social and economic sustainability.

1.4 Points of departure

The points of departure are as follows:

An exploration leading to the investigation of how architecture is experienced; the effect, subconsciously and consciously, that architecture can and should have on the everyday user in enhancing perceptual experience by means of sensory stimulation.

To investigate the potential of architectural elements to transform the imagination and reach into the visitor's memory while creating an awareness regarding the perceptual consciousness of the surrounding environment.

To commemorate an event that is significant in the history and topography of the northern Tshwane region by means of architecture that is accessible to the general public.

To investigate the potential of re-utilising existing structures to retain both the physical and metaphysical memory related to the site by means of an analysis based on the principles in the Burra Charter.

1.5 Design objectives

The design objectives of the proposal are as follows:

To manifest the memory of the site and its related histories by integrating the intangible aspects such as memory, and implementing architectural interventions that become devices for perceiving and experiencing the memory of the site. This would be achieved by simultaneously facilitating the consciousness of the body and the imagination, and enabling the memory to stay alive and continue expanding into the future without detracting from the unique natural character and setting that the project is located in.

To re-address the typology of the memorial in the African context for the present and future by facilitating sustainable management, conservation and development.

To provide a means of facilitating education, awareness and enjoyment of one of the country's prime geological heritage sites and consequently ensure that the fragile environment be protected against damage and destruction and therefore be preserved in its entirety.

To investigate the potential of the architectural intervention to act as facilitator and income generator for the site and the immediate community.

To ensure minimal impact on the natural environment by minimising the potential ecological footprint caused by the construction by integrating sustainable design and construction, integrating inclusive design principles, considering the use of materials, natural heating, cooling, lighting and other methods, as well as utilising the local workforce.

1.6 Methodology

The proposed research methodology to be followed is the descriptive survey method, where the site and surrounding environment will be analysed by means of physically experiencing the site at different times and by conducting interviews with relevant interested parties. The aim is to observe and translate the information gathered into a fully developed design.

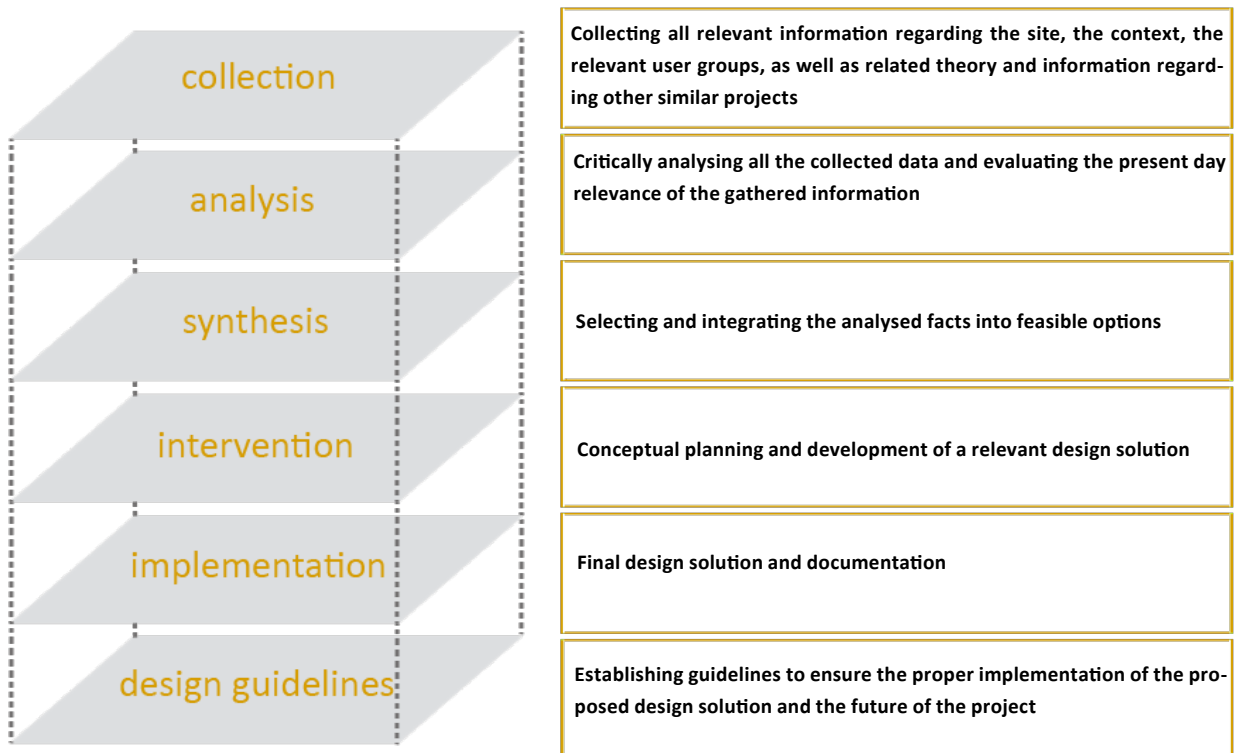
The system approach illustrated in figure 01:03 will be used as part of the research and design development strategy.

The design methodology will proceed to:

- Unveil the site's memories
- Identify the functions/activities to take place
- Analyse the experiences relating to humans
- Translate these into architectural form

1.7 Client profile

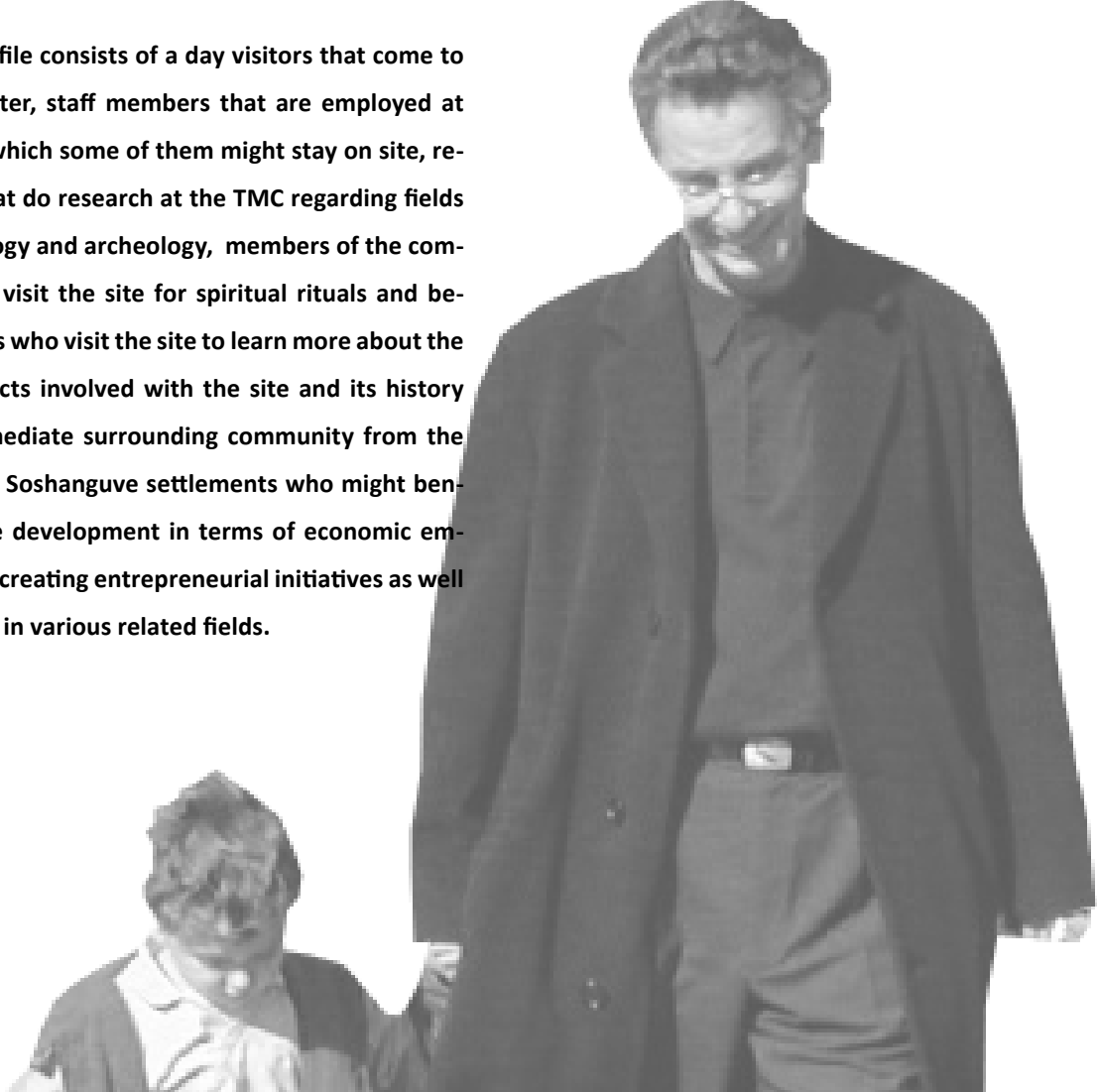
The registered landowner of the site is the National Department of Public Works. It is managed by the Northern Flagship Institution, a heritage conservation institute which comprises the national museums in Gauteng, and which was established in terms of the 1998 Cultural Institutions Act [Act 119 of 1998].





1.8 User profile

The user profile consists of a day visitors that come to view the crater, staff members that are employed at the TMC of which some of them might stay on site, researchers that do research at the TMC regarding fields such as geology and archeology, members of the community who visit the site for spiritual rituals and beliefs, learners who visit the site to learn more about the various aspects involved with the site and its history and the immediate surrounding community from the Soutpan and Soshanguve settlements who might benefit from the development in terms of economic empowerment, creating entrepreneurial initiatives as well as education in various related fields.



Day visitor	Information, Education, Interaction, Refreshments, Ablution facilities
Staff member	Housing, Access to amenities
Researcher	Research documentation, Workshop, Accommodation
Spiritual community	Contemplative environment, Silence, Crater access
Educational community	Education, Information, Refreshments, Accommodation
Immediate surrounding community	Education, Economic empowerment

Figure 1.05 Identified user groups and associated requirements