

After/Life Revitalization of the La Familia Memorial Park in Macabebe, Pampanga as a Regenerative Funerary Landscape through an Environmental Psychology Design Approach

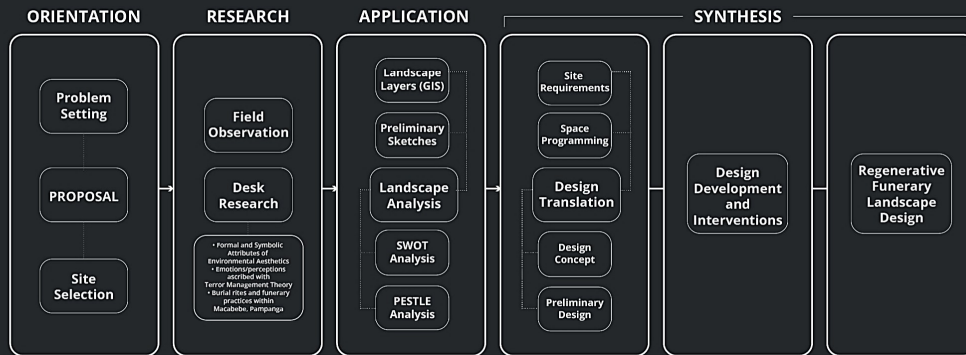
LEIJH HANNEY ALIANZA | 2019-05679 | L ARCH 132 | PROF. CHARL JUSTINE B. DARAPISA



ABSTRACT

Death is an inevitable state of being, and feelings associated with reminders of death continue to permeate within both our subconscious and our spatial environments. With the adverse effects brought upon by rapid urbanization and population growth, it is evident that spaces for the living are prioritized over the dead; thus, leaving cemeteries in a state of neglect. In the coastal municipality of Macabebe, Pampanga, funerary landscapes that are situated within flood basins and nearby hydrological units are continuously submerged in water over time due to rising sea levels and ground subsidence. Despite the urgency in mitigating the adverse effects of these environmental issues within cemeteries, these landscapes are often left uncared for, which continues to damage nearby ecological units and induce feelings of unease and displeasure to the viewers. Thus, a new approach in the formation and rehabilitation of environmentally ethical funerary landscapes within ecologically critical areas, and a deeper understanding of how grief influences the conception of such spaces is needed within the local setting. This study presents an environmental psychology design approach using the formal and symbolic attributes of landscape aesthetics and the Terror Management Theory (TMT) in the restoration and rehabilitation of the La Familia Memorial Park, a sunken cemetery, in Brgy. Sta. Cruz, Macabebe, Pampanga. The proposed wetland memorial park in the study area, inspired by the events of the tagulele and funerary practices within Macabebe, Pampanga aims to bring back life into otherwise dead spaces: by embracing the flooding events in the area to foster a rich local ecology and unique sequential user experience. Moreover, the conversion of existing crypts into green sarcophagi and memorial green walls, coupled with swales are integrated to foster aquatic plant life with phytoremediation potential. Lastly, the proposed design features a boardwalk establishing the lost connection from the spaces allotted for the living towards the dead. The implications of this study can be used as a basis for the creation of regenerative funerary landscapes in the local setting through green funerary techniques. Furthermore, the results emphasize on the need to rehabilitate sunken cemeteries or funerary landscapes under threat of decay and the adverse effects of climate change. Lastly, the results of this study shall be helpful to the community of Macabebe, Pampanga by fostering diverse ecological communities, encouraging community participation in the maintenance of the site, and reuniting the living with the dead in a spatial setting.

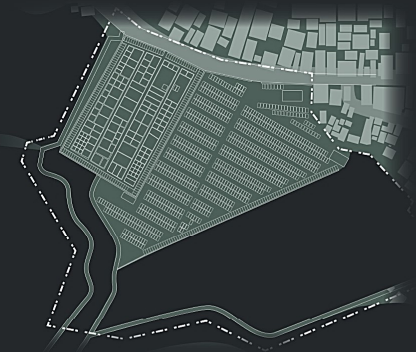
RESEARCH DESIGN



SITE BACKGROUND

LA FAMILIA MEMORIAL PARK

The La Familia Memorial Park is a public cemetery located in Brgy. Sta. Cruz, Macabebe, Pampanga, and is one of ~6 cemeteries within the vicinity. Its land area is approximately 3.5 hectares (or approximately 34800 square meters). It has three distinct zones comprising of the former burial grounds, active burial grounds, and nearby hydrological units. Based on satellite imagery, vegetation used to be present in the early 2000s but disappeared during the 2010s. The last known year that the site was noted to be free of floods was 2016, when the local government units raised the adjacent roads to combat ground subsidence and flooding within the area.



MAIN PROBLEM

How do grief and the phenomenological perception of death influence the reimagination and conversion of the La Familia Memorial Park into a regenerative funerary landscape?

PESTLE ANALYSIS

POLITICAL

The development of a memorial park/cemetery shall be pursuant to the rules and regulations imposed by the Housing and Land Use Regulatory Board (HLURB) and the PD 856 or Sanitation Code of the Philippines

ECONOMIC

The major industries within Macabebe, Pampanga include farming and fishing. The presence of flooded and unsanitary cemeteries in the area may pose a threat to these industries and to human health when they contaminate the soil and water quality.

SOCIO-CULTURAL

The site has huge cultural and spiritual significance to the users, the deceased, and their respective families, but there is a lack of programs rehabilitating funerary landscapes within the municipality.

TECHNOLOGICAL

There is a need to incorporate appropriate design interventions to mitigate the adverse effects of flooding, ground subsidence, and further degradation of the site to ensure the safety of the users and nearby occupants by the site.

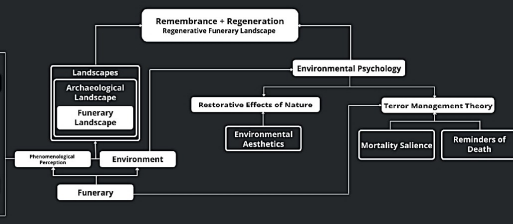
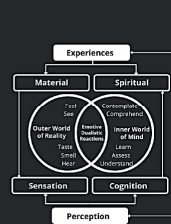
LEGAL

Human and financial resources rehabilitating the site are the limiting factors of the site. Some families, who cannot afford to exhume and transfer the bodies of the deceased to a new cemetery, are forced to leave the bodies of their loved ones submerged in floodwater.

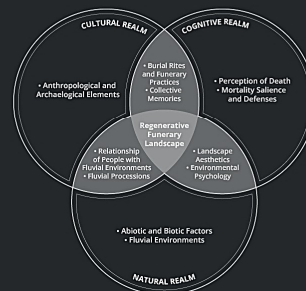
ENVIRONMENTAL

The site is located within a transition zone, and is undergoing the process of eutrophication because of the constant flooding, ground subsidence, and degraded water quality of nearby hydrological units.

THEORETICAL FRAMEWORK



CONCEPTUAL FRAMEWORK



SWOT ANALYSIS

STRENGTHS

- Site is directly accessible from one road adjacent to residential and commercial areas
- A portion of the site is still in use by the residents

WEAKNESSES

- The site is sinking every year because of ground subsidence
- Eutrophication and accumulation of water hyacinth is evident
- Exhumed bodies soaked in the water emit unpleasant odors
- Presence of pollution and waste
- Site is now inaccessible by the users because most of its area is submerged in water
- Lack of vegetation in the area

OPPORTUNITIES

- Site has the potential to become a memorial wetland park
- Edges of the site may accommodate mangroves as a measure in flood mitigation
- Green Funerary Techniques is already practiced by Kapampangan people
- Topography of the site may be manipulated to drain water away

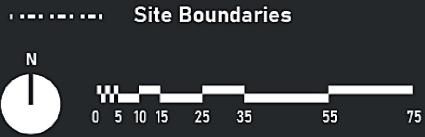
THREATS

- Exhumed bodies soaked in the water may pose problems to community and ecological health within the area
- Ethical and religious considerations on the parts of the existing grave/lotowners should be taken into account
- Site will continue to be submerged in the subsequent years

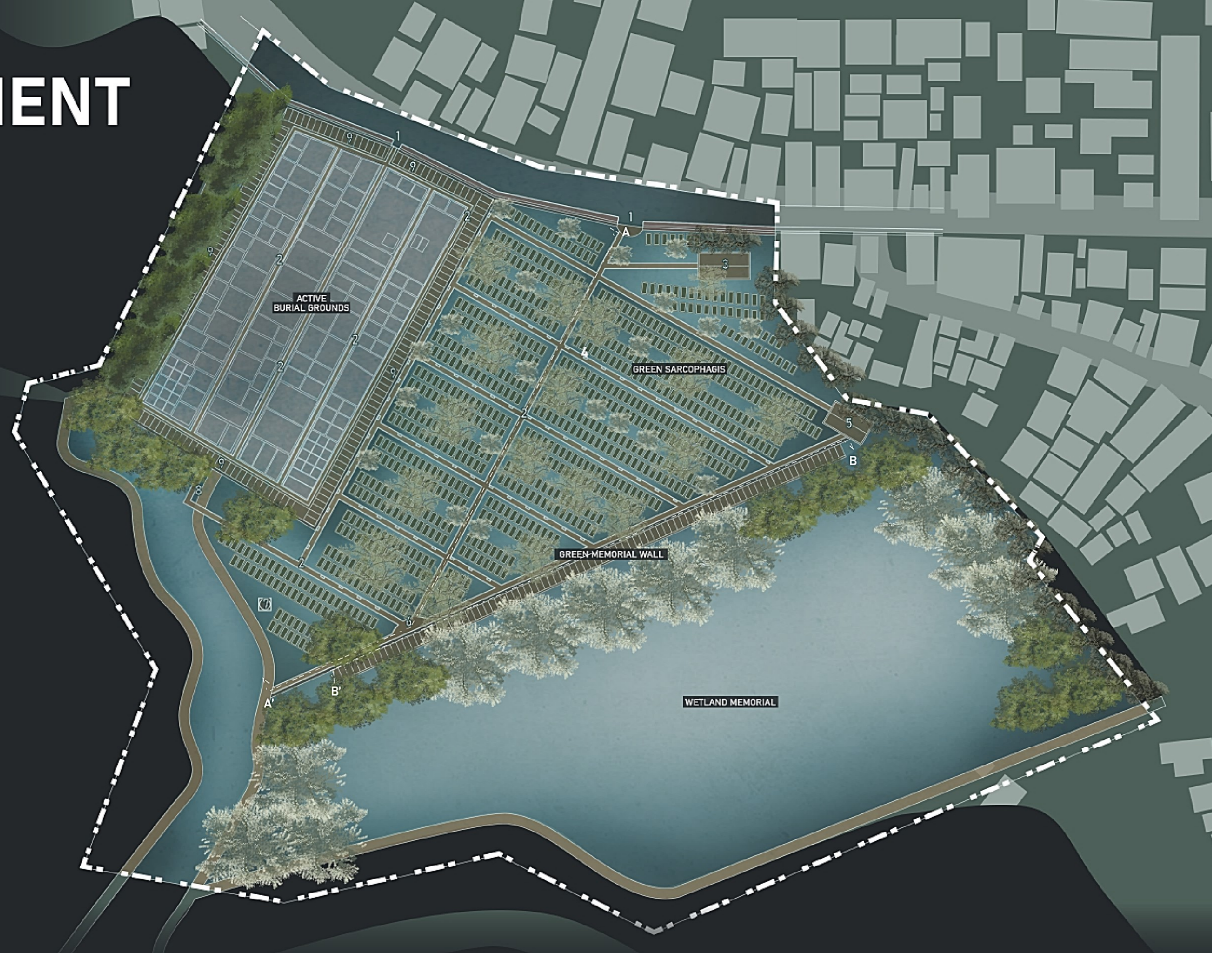
SITE DEVELOPMENT PLAN

La Familia Cemetery, Macabebe, Pampanga

- Entrance 6 Gathering Area
- Boardwalk 7 Feature Sculpture
- Chapel 8 Boat Dock
- Benches 9 Bioswales
- Gazebo 10 Stacked-type Crypts



Coordinate System: 14, 706,807° N, 120, 710,201° E
 Projection: Universal Transverse Mercator (UTM) Zone 51
 Datum: WGS 1984 Service: Credit Layers: Snazzy Maps, Open Street Map, Google Maps, Adobe Illustrator
 Date Created: May 11, 2022
 Prepared By: Leijh Hanne Y. Alianza | 2019 - 05679



DESIGN PHILOSOPHY

Remembrance + Regeneration

- Rehabilitation and remediation** – Revitalization of the site using ecologically-significant plant species shall be used to mitigate the effects of eutrophication and the degraded water and soil quality in the area
- Renewal and recovery** – The overall design aims to become a refuge for families with loved ones buried in the area, and as well as to become a place of reflection and peace for people who are dealing with emotions associated with the awareness of their own mortality.
- Retention and resilience** – By embracing the flooding events of the site as a key feature of the development, populations of diverse ecological growth, and a sense of local character within the community will be fostered

DESIGN CONCEPT

Macabebe's Tagulele

The tagulele, or chanting of lamentation, highlights the story behind the life and legacy of the deceased, and is directly lifted from the book of Lamentations in the Bible. This piece of local literature, along with the dimensions of grief, serves as the primary inspiration in weaving a sequential experience for the users within a regenerative wetland memorial park.

DESIGN VISION

To bring back life to the dead

DESIGN ELEMENTS AND STRATEGIES

	Denial	Guilt	Anger	Depression	Upward Turn	Reconstruction	Acceptance
Associated Emotions	Mourning, Confusion	Depression, Betrayal	Bargaining, Resentment	Reflection, Loneliness	Awakened, Strengthened	Refreshed, Inspired	Hopeful, Relaxed
Renewal + Recovery	Sunken Crypts	Seating Areas	Church	Dead Trees	Gathering Area	Green Memorial Wall	Water Sculpture
Remediation + Rehabilitation	Water Hyacinths	Existing Planting	Linear Planting to Chapel	Nearby Waterbodies	Talisay Trees	Green Sarcophagi	Bioswales
Resilience + Retention	Flooded Mausoleums	Memorials	Repurposed Sunken Chapel	Modified Topography	Boardwalk	Mangroves	Wetland Park

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SITE INVENTORY MICROCLIMATE

WIND PATH
 Result: Scale of Wind Force



SITE INVENTORY MICROCLIMATE

SUN PATH
 SHADY OUTSIDE (Low Sun Angle)
 SUNSHINY OUTSIDE (High Sun Angle)
 SHADY INSIDE (Low Sun Angle)
 SUNSHINY INSIDE (High Sun Angle)



SITE INVENTORY FLOOD HAZARD MAP

LEGEND
 Low Susceptibility
 Medium Susceptibility
 High Susceptibility
 Site Boundaries



SITE INVENTORY EXISTING CONDITIONS

LEGEND
 Semi-underwater areas
 Fully underwater areas
 Fully underwater areas with water hyacinth growth
 Dead Trees
 Existing Trees
 Site Boundaries



SITE ANALYSIS

LEGEND
 Active burial grounds
 Proposed Wetland
 Proposed Park
 Proposed Path
 Varies
 Buffer
 Dead Trees
 Existing Trees
 Water Hyacinth Colonies
 Vegetation Colonies
 Site Boundaries



ZONING DIAGRAM

LEGEND
 City Zoning 1
 City Zoning 2
 City Zoning 3
 City Zoning 4
 City Zoning 5
 City Zoning 6
 City Zoning 7
 City Zoning 8
 City Zoning 9
 City Zoning 10
 Site Boundaries



DESIGN VISUALIZATIONS



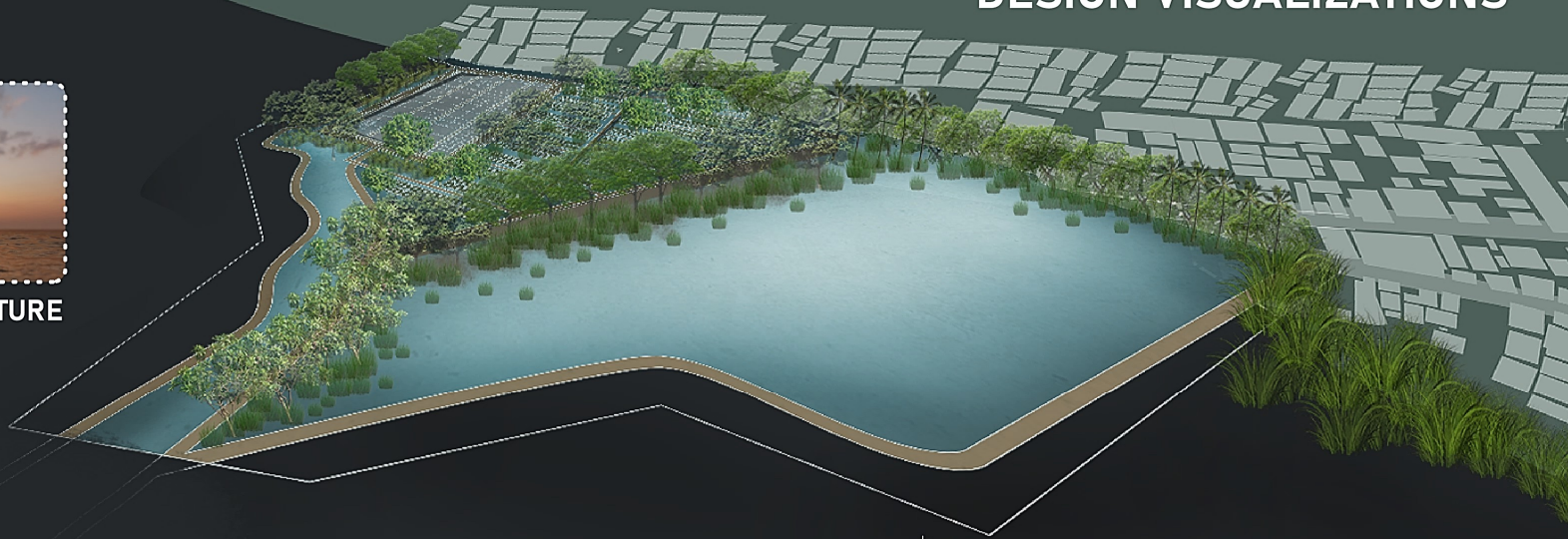
BOARDWALK



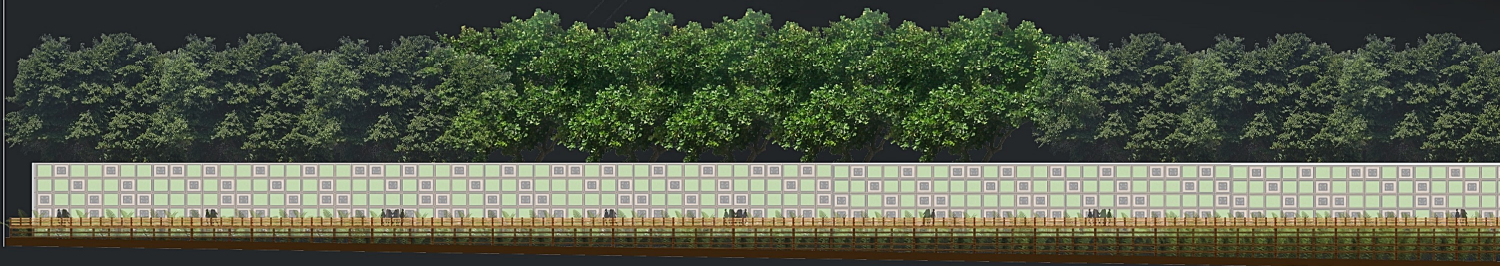
FEATURE SCULPTURE



GREEN SARCOPHAGI



GREEN MEMORIAL WALL



SECTION ELEVATION THROUGH A-A'
SCALE 1:1250 MTS.



BOARDWALK



SECTION ELEVATION THROUGH B-B'
SCALE 1:1250 MTS.

