

# EGYPT'S EARTH ARCHITECTURE

The emerging preoccupation with “**earth architecture**” - architecture made of building materials locally sourced from the landscape - reflects a dire need for the architectural discipline to adapt to the ongoing climate crisis. Earth architecture offers architects an alternative to conventional building materials, ones that can instead be sourced on site, skipping phases of industrial processing and transportation.

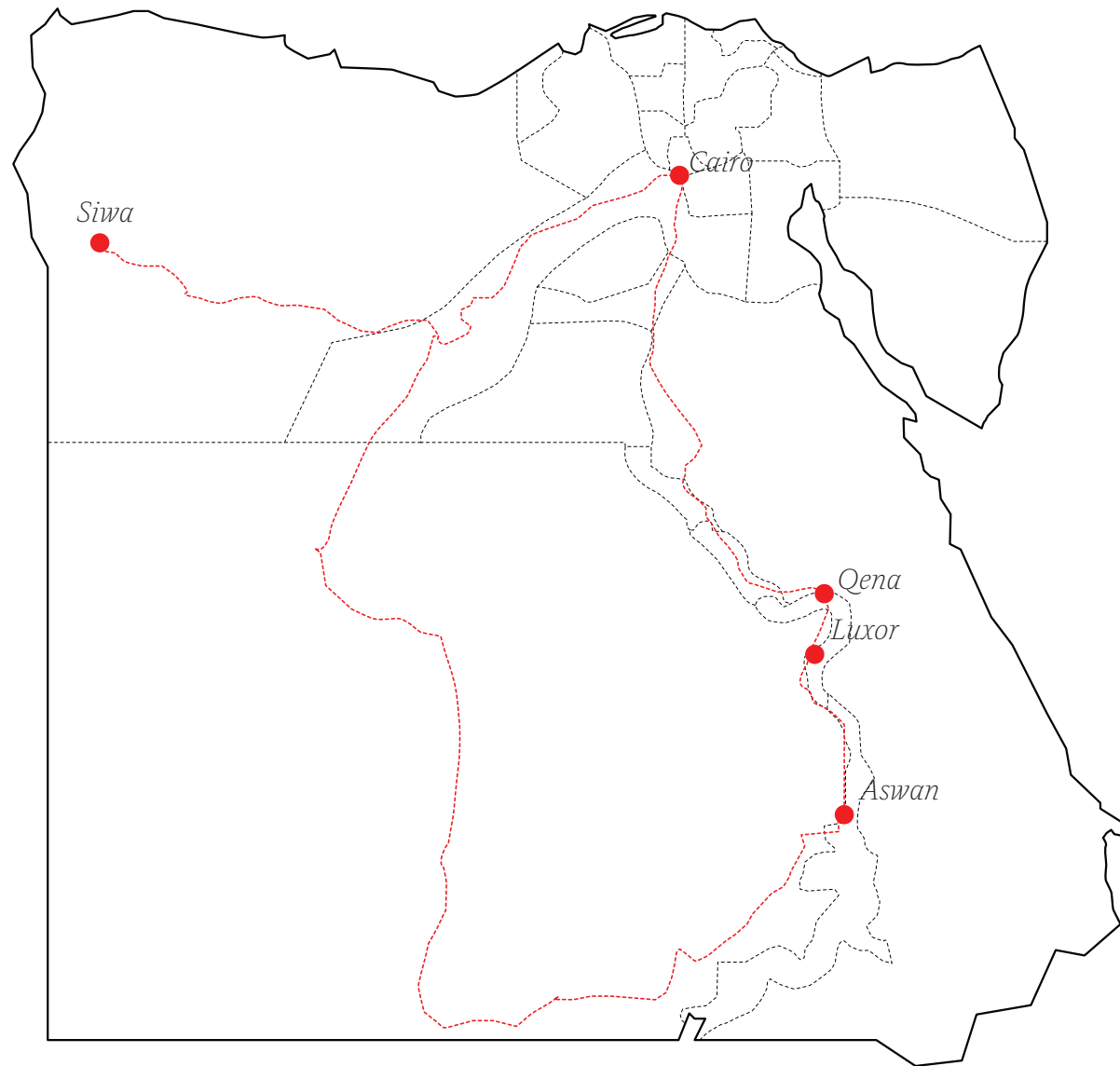
Egyptian earth architecture, deeply rooted in an ancient tradition, has much to offer the current discipline of architecture and building material studies in terms of sustainability. Earth architecture in Egypt consists mainly of buildings made from mud-brick, with varied salt content. I will focus on three distinct tropes of traditional building styles in Egyptian architecture, analyzing both building materials and form: **the salt houses of the Siwa region, the mud-brick village of Aswan, and Hassan Fathy's modern visions of vernacular Egyptian architecture.**

The salt houses in the Siwa region of western Egypt are constructed of Kershef - a vernacular desert invention made of sand and dehydrated salt from residing salt lakes. These salt structures were built around 1200 AD, but there are still present-day craftsmen who continue to pass on the trade and building techniques. Many structures are undergoing preservation, as rain storms (albeit rare) have washed away some of the buildings. Salt as a building material is hyper-local in this case, given the proximity of the Siwa oasis to salt deposits and lakes consisting of nearly 95% salt content. However, this ancient building technique has modern day applications - researchers in the UAE are currently looking at their own salt landscapes to try and create new typologies of construction.

The houses of Aswan similarly utilize mud-brick construction techniques, rooted in tradition and Nubian culture. Presently, Nubian people still build houses using mud, brick, palm leaves, and reeds. These houses utilize traditional vault styles, excellent for thermal protection against the hot days and cold nights. The Nubian houses of Aswan can be constructed in only 15 days, and provide a powerful precedent for new markets of sustainable construction.

Lastly, Hassan Fathy's own contributions to the resurgent interest in Egypt's earth architecture will be crucial to my research. Fathy was dedicated to learning traditional building techniques to create new, modern proposals for housing developments and structures in Egypt. His work centers the voices of the marginalized, and brought a new awareness to not only vernacular Egyptian architecture, but also Earth Architecture. I propose a visit to his New Gournia Village, as well as his many structures in Cairo.

This travel proposal seeks to document and analyze the distinctive earth architecture of Egypt, throughout various regions of the country. I will work through photography, drawing, and 3-D modeling to create “typical” construction drawings for this historic building trade. An emphasis will also be placed on studying the material properties and oral history of the craft, through dialogue with craftsmen and experts in the field. Construction drawings and documentation will seek to act as neutral documents of archive for a disappearing craft, with a robust history, that can provide important contributions to building in an era of climate crisis.



## Itinerary

Cairo <i>Mud-brick Old Cairo, Shahira Mehrez Apartment, Andreoli Residence</i>	Days 1-8
Qena <i>Ceramics Factory</i>	Days 8-12
Luxor <i>New Gournia Village</i>	Days 12-14
Aswan <i>Nubian Villages</i>	Days 14-19
Siwa <i>Siwa Salt Lake, Siwa fortress</i>	Days 19-23

## Budget

Airfare	\$3,000
Lodging	\$2,500
Food	\$1,500
Transportation	\$1,000
Research Expenses	\$1,500
Exhibition Expenses	\$1,500
Guide	\$1,500
Contingency	\$2,500
<b>Total</b>	<b>\$15,000</b>



Western Egyptian mud homes



Andreoli Residence



Nubian dome



Siwa Fortress



Siwa Salt Lake



New Gournia Village