STUDIO IN MOTION

WAHAT, EGYPT EDITION - 2025

Dr. Sherif Goubran

ENGAGED
SUSTAINABLE
FUTURES

Measure, Analyze,
Mobilize for the Built
Environment

STUDIO IN MOTION

Studio in Motion is an ongoing exploration of architectural education beyond the classroom. It positions learning as a dynamic, place-based process, where travel, fieldwork, and direct engagement with context become essential tools for understanding architecture.

Developed as part of the **Engaged Sustainable Futures (ESF)** platform, the studio extends learning into real environments, moving beyond abstract studio conditions toward observation, making, and critical reflection. Each edition focuses on a specific location and set of conditions, using the site itself as a laboratory for investigation.

Across different geographies, the studio explores how architecture responds to climate, material, and local knowledge, encouraging students to engage with both global discourse and vernacular practices.

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WAHAT, EGYPT EDITION

The Wahat edition explored architecture through sustainability, material intelligence, and hands-on making. Set between SEKEM Farm and Bahariya Oasis, the studio grounded learning in real environments and local building practices.

At SEKEM, participants were introduced to rammed earth construction, understanding how natural materials and simple techniques can respond to climate and context.

In Wahat, the focus shifted from learning to doing. Working directly with adobe, participants engaged in hands-on construction, exploring material behavior through practice. The experience culminated in an experimental exercise — building a vault, translating theory into structure.

This edition positioned architecture as a physical, collective process — learned through making, testing, and engaging directly with place

1.STUDIO OVERVIEW

STUDIO OVERVIEW

DAY 1

The studio began with a visit to SEKEM Farm, introducing participants to contemporary applications of vernacular architecture, particularly rammed earth construction. Through site exploration and discussion, students examined material behavior, passive design strategies, and the role of architecture in sustainable living systems, establishing a conceptual foundation for the studio.

DAY 2

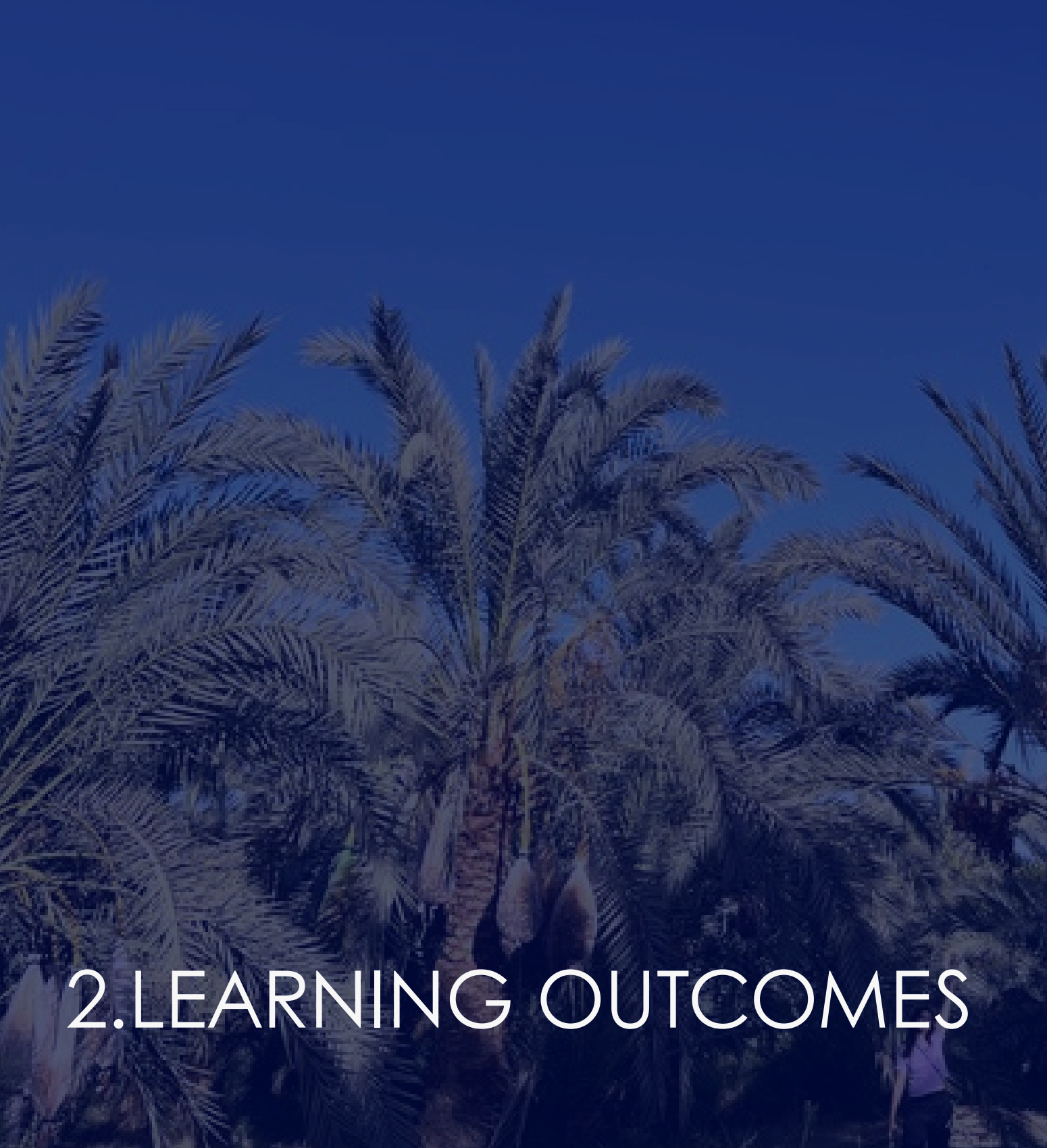
Participants engaged in guided exploration of the Black & White Desert, observing geological formations and environmental conditions. The overnight camping experience provided a deeper immersion into the landscape, fostering an experiential understanding of climate, scale, and context to inform subsequent design thinking.

DAY 3

The focus shifted to hands-on construction, beginning with preparing and testing adobe mixes. Participants then planned layouts and initiated group prototypes, including windcatchers and vaults, translating theoretical knowledge into physical experimentation.

DAY 4

The final day involved completing the prototypes and removing the vault formwork to assess structural performance. The process emphasized learning through making, followed by documentation and reflection on key challenges and outcomes.



2.LEARNING OUTCOMES

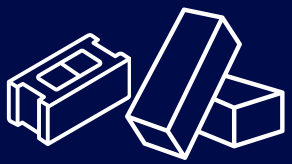
HOW TO MAKE ADOBE BRICKS

STEP 1 - Prepare the Mix

Combine soil, sand, water, and straw to create a workable mouna mix (adjust ratios based on soil quality).

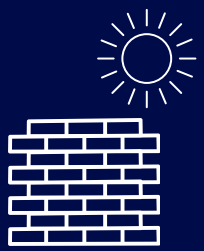
STEP 2 - Mould the Bricks

Place the wet mix into molds and compress firmly to shape the bricks.



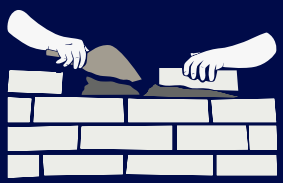
STEP 3 - Release & Set

Remove the molds and leave the bricks to hold their form on flat ground.



STEP 4 - Air & Sun Dry

Let the bricks dry naturally for 1–2 days (or longer depending on climate) until hardened.



STEP 5 - Build

Stack bricks using mouna as mortar, forming walls or structures.

3.EXPERIMENTATION OUTCOMES

PROTOTYPE: VAULT

The first vault prototype explored the fundamentals of building with adobe through compression.
Using temporary curved formwork, bricks were carefully layered to establish the arch profile, testing how geometry enables the structure to transition from supported to self-standing.
The process highlighted the importance of alignment, consistent bonding, and weight distribution, while revealing the limitations of the material in early stages of construction. As an initial attempt, it served as a learning exercise in both technique and structural behavior.

PROTOTYPE WINDCATCHER

The windcatcher prototype explored passive cooling strategies through form and orientation.
Using adobe construction, the structure was designed to capture and direct airflow downward, demonstrating how vernacular systems respond to climate without mechanical intervention.
The exercise focused on understanding air movement, opening proportions, and the relationship between structure and environmental performance.

4.DOCUMENTATION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