PRODUCTIVE PATH
COLLABORATION CONNECTION

The proposed architectural design for this project is anchored in the core principles of utilizing local resources, including materials and labour, while minimizing the need for external financial support. This approach not only offers practical benefits but also enhances the locals' sense of belonging and fosters a renewed spirit of unity and cooperation among the residents. By leveraging the community's resources and skills, a shared sense of ownership and pride in the built environment is cultivated, thereby reinforcing the region's unique identity and cultural values.

The primary goal of the design is to establish an efficient and sustainable production-to-sale supply chain centered around date palm products. Embracing a cost-efficient and environmentally-friendly ventilation method, rooted in historical practices from the Iranian plateau, the design is thoughtfully integrated into the local culture, adopting a clustered configuration.

The dates' supply chain can be summarized into several key steps, including sorting, cleaning, cooling, packing, and the creation of sub-products for subsequent sale or delivery. To address the region's limitations and achieve a sustainable and cost-effective solution, a passive cooling system is proposed. This system serves as a durable and resource-efficient alternative when conventional refrigeration methods are not readily available or financially feasible, offering low to zero costs. The designated space for cooling becomes an integral component of the architectural ensemble, providing a centralized location for this crucial aspect of the supply chain.

In essence, this architectural endeavour envisions a comprehensive network connecting small and large villages encircling the Salazar River. Functioning as an expansive factory, the design aims to elevate the economic prosperity of the villages while fostering effective communication and harmonization throughout the region. By thoughtfully integrating various elements and embracing a multi-faceted supply chain, the project aspires to create a communal space that nurtures a profound sense of belonging and collective spirit among the actively engaged villagers. Ultimately, the design serves as the central hub, fulfilling diverse objectives, and meeting the village's communal requirements.

SITE LOCATION

Parkan Village and the discussion

SELECTED VILLAGES AS PRODUCT PATH ▲

DATE PRODUCT PROCESS

Challenges and proposed solution

CURRENT SITUATION

Farmers are compelled to sell their products at a dramatically low price due to the lack of adequate facilities for storage and consumption throughout the year.

Date tree revenge age between 100 to 150 years. Harvesting time: once a year on August - September. Harvesting time depends on the climate condition. Dates can be stored for a maximum of one days at room temperature.

Transfer to sorting, cleaning place. After harvesting dates are sorting, cleaning washing and packaging to prepare for sub-products.

After initial preparation the dates are ready for sub-product but due to the volume of harvest the dates are divided:
1- Stored in cooling to sell through the year as sub-product.
2- Stored in cooling to sell through the rest of year for sub-product.

PROPOSED STRATEGY AS PER HARVESTING AND PRODUCTION TIME LINE

The main goal of this process is making local value - of dates, dates and harvesting to market. All the dates are harvested and stored in cooling to sell through the year. Dates are the main source of the severe supply material for series and products. All dates are transferred to the half boiled, dried, and fresh dates. Half boiled dates are sent to the factory to make sub-products. Dried seeds are sometimes ground and used as dried dates for tea, coffee, vinegar, and a strong liquor. Fresh dates are sold in the market. Dates are used in the production factory or farmers and the path is cut down, the leaves remove and a stem is created.

PARKAN VILLAGE
Wind direction and natural ventilation

Village fabric and wind direction. Organically and geometrically clustered arrangements are employed to accommodate inhabitants in Parkan village.

Current access and propose alternative

Current situation

Conflation of pedestrian and vehicular routes, presenting a precarious and hazardous situation on shared routes

Irrigation streams that branches off from the river and cross the farm path, creating a barrier and requiring the entire farm to be free from water.

Unused roads that undergo frequent closures or alterations throughout the year due to site flooding.

Proposed changes

Separating the equestrian and pedestrian paths by creating a suitable height for the equestrian path and enabling smoother movements for pedestrians.

Establishing the capability to construct, store, and utilize water from the diversion channel along the proper route.

Proposed a proper route for the main road in a way that can prevent a traffic zone between the river and the village.

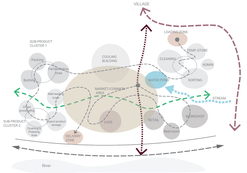
Date tree as natural passive climate mediators

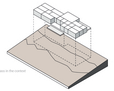
Date trees with up to 25 meters height provide sufficient shading for farming other trees and vegetables and humidity in the dry and hot weather condition.

Incorporating date trees strategically into the architectural fabric can enhance comfort levels for inhabitants, reduce energy consumption for cooling, and contribute to a sustainable and climate-responsive design approach.

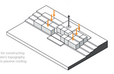
DESIGN PROGRAM
Physical program

Physical program
Proposed programs of areas required to make a date productive chain (the program has the capability of scalability and adding new spaces to production plans.





Proposed physical program on one compact mass in the colored



The terraced terrain offers a practical approach for constructing multiple interconnected buildings with varying functions. Additionally, elevating the roof capital enhances passive cooling within the cooling building.

The complex is divided based into two primary zone: one connecting the village to the farm path and the other addressing the production path within public farms.

The design takes inspiration from the village's commonness' linear configuration, notable for its covered housing arrangement. This setup enables the natural growth of date trees.
The proposed design incorporates a central courtyard with a light canopy and a single palm as a symbol of growth. This offers additional space for both work and leisure, fostering user interaction and relaxation.

DESIGN PROGRAM
Phase I - cooling and preparation buildings

Function
- Cooling building(central feature of the complex)
- Receiving product area
- Sorting room
- Cleaning room
- Loading/unloading area
- Cold storage

Program
- Receiving dates from farmers
- Sort and clean the product
- Store in the cooling building to be stored

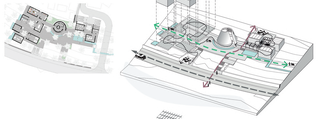
Goals
- Phase1 of the project serves as a dual-purpose space, a product storage facility for farmers, ensuring consistent supply of dates for year-round sale and income maximization by meeting market demand, and a vibrant hub for the local community, facilitating interactions, social and cultural activities, fostering markets, and storage community bonds. The well-planned phase lays the foundation for future stages, aiming to create a thriving platform benefiting the agricultural sector and the local community.

PHASE II - COMPLETE THE PRODUCTIVE CHAIN

Function
- Fermentation Area
- Sorting & Packaging
- Bottling & Packaging
- Chips Dryer
- Mat-weaving workshop
- Packaging
- Export product storage
- Processing workshop area

Program
- Receiving dates from cleaning and sorting area
- Fermentation process
- Package the final product for exporting

Goals
- The overarching goals of Phase II are to create job opportunities and generate year-round income for both farmers and villagers by facilitating on-site production of date sub-products. By utilizing locally sourced materials and leveraging local expertise, the project aims to foster growth. The project strives to bolster the community's economic prosperity and promote the date industry's sustainability.



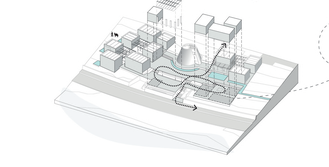
PHASE III - URBAN AMENITIES DEVELOPMENT

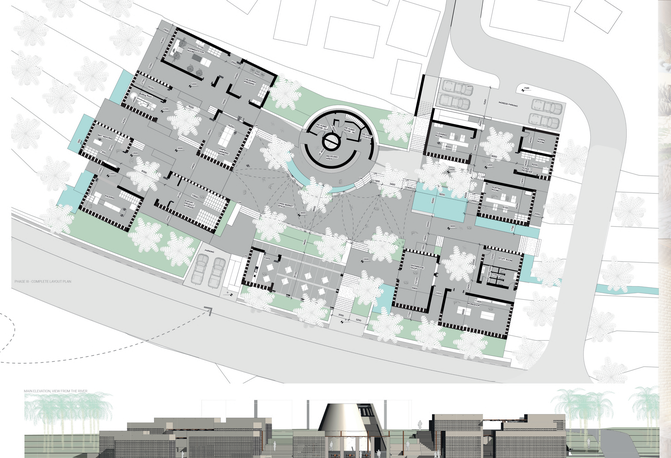
Function
- Cafe
- Museum
- Auditorium
- Staff room and lockers
- Multifunction room

Program
- Provide a refreshing area to staff during working hours
- Provide the direct selling platform (shop) to farmers on-site to sell their products

The cafe, a new social hub, serves the villagers and visitors during the markets and their social interaction.
The multifunctional room is where the meetings and possible workshops could be held.

Goals
- The goals of Phase III are centered around creating a more inclusive, complete and establishing a shared social space for villagers and visitors alike. By providing spaces for social interaction, promoting local products through the auditorium and museum, and facilitating meetings and workshops in the multifunctional rooms, the project aims to strengthen community bonds and enrich the overall experiences for all involved parties.





VIEW FROM MAIN ENTRANCE

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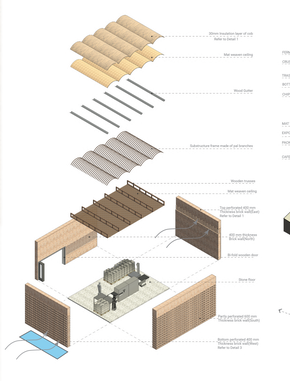
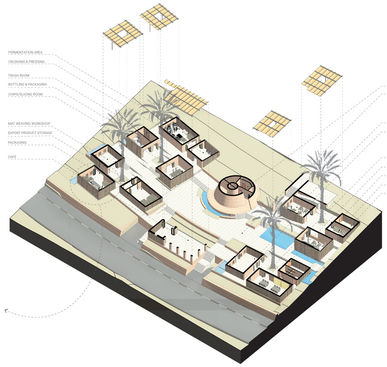
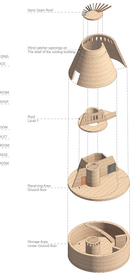
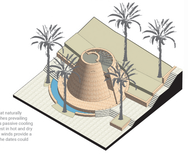


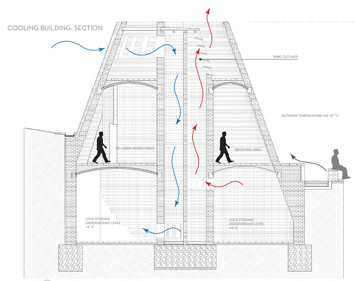
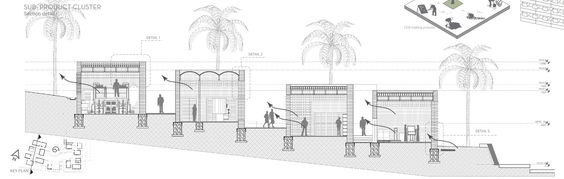
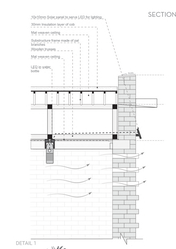
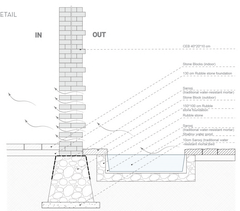
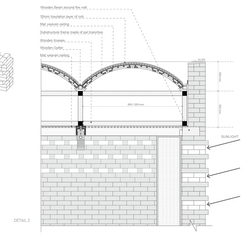


COOLING BUILDING
An inspiration from ancient technique





EXPLODED AXONOMETRIC
Typical structure

PROPOSED COOLING BUILDING

A wind catcher is an ancient architectural feature that naturally Cools and ventilates buildings in hot regions. It catches prevailing Winds, creates airflow inside the building, and offers passive cooling. Wind catchers are commonly found in Iran, Egypt, Oman, and the Climates like Dorian and Baluchistan. The prevailing winds provide a Cooling effect and flow to the underground, where the dates could be storages for longer.