Habibi Community Centre

Bersive Camp 2
Zahko Kurdistan Iraq
2021-2022

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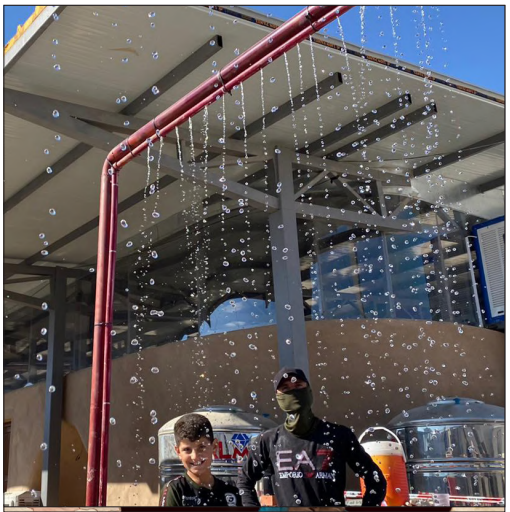
PROJECT

Contents

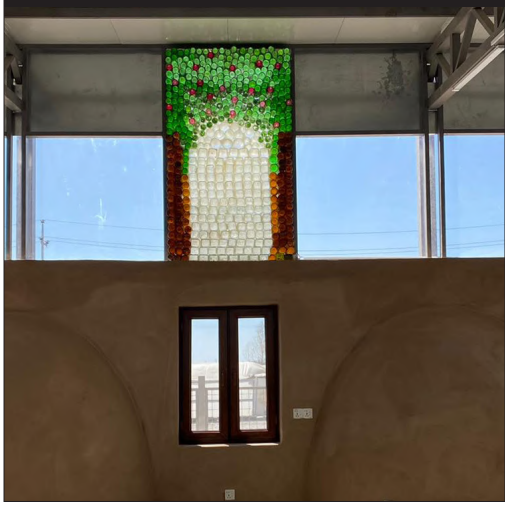










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01: Habibi Community Centre

Overview

The **Habibi Community Centre** is a collaboratively designed and built project completed in 2022.

Located in the **Bersive 2 Camp for Internal Displaced Persons (IDPs) in Northern Kurdistan in Iraq,** the facility provides 350m^2 of essential healthcare and community facilities. These include: medical and dental clinics, a dedicated women's and children's place, counselling and therapy spaces, a community hall and kitchen for learning and community activities, a co-designed playground and sanitary facilities.

The project was built using **Superadobe techniques** to enable participatory construction, and a local material economy and for local empowerment. It is a unique and ground-breaking project conducted in a collaborative framework involving **Insitu Project**, ABCD Collaborative, HIS Foundation, Habibi International, Vide Terra, MedEast and Catalytic Action.

The completed project is notable for being the first non-transitional non-temporary building in the camp. It has attracted significant interest from NGOs, camp managers, government officials, and the UNHCR, as well as international recognition: Design Educates Bronze Award 2023 and Finalist in Architizer Awards 2023 to date.

02: Spatial Context

Environment and context of Bersive 2 Camp

The **Bersive 2 Camp,** initiated in 2014, is located in the Duhok region, 10km to the northeast of the city of Zahko in **Kurdistan, Iraq**, and 10km south of the Turkish border with Iraq. The camp presently hosts approximately **9,000 Internally Displaced Persons (IDPs)**, in **1,700 households** of mostly **Yazidi origin**.

The households comprise of **30% persons below the ages of 11**, which means that many of the children have been born in the camp.

Similar to other IDP and refugee camps, **basic humanitarian aid is provided by a variety of NGOs**. Formerly run by the **UNHCR**, the Kurdish government now runs the camps with UNHCR providing frameworks and the majority of financial support, including subsistence funding to families and individuals.

The camp provides **basic tents, infrastructural amenities and basic functions**, including school and kindergarten and material support with minimal civic or community infrastructure and a subsistence level of amenities.

The **habitation tents generally correspond to the UNHCR standard** framed tent typology, with a primary material being steel-framed and woven polyethylene tents on concrete slabs. Minimal washroom and cooking areas are provided.

Residents are generally not permitted to transform their places of residence, which are subject to **sub-zero temperatures in the winter and above 35 degrees Celsius in the summer**; the tents are environmentally unsuitable for long-term living, which has led to frequent tragic fires in the camps as residents struggle to keep warm in winter with kerosene fires.

Similarly, community buildings, including schools, shops and clinics in the camp, generally consist of **container-type buildings** or simple concrete block buildings with corrugated metal roofs. There is a lack of community and stability for the residents, and there is no evidence that the situation will change in the near future.

In general terms, the intent of the camps has been to **provide temporary and transitional amenities** and are run with regulations and policies aimed at eventual re-settlement or **return of IDPs and refugees to their places of origin** or other accepting countries.

In the absence of greater stability in the residents' homelands, there are few motivations for them to re-settle anytime soon. Displaced people can also work, but they remain far from the nearest town, with limited opportunities for integration outside the camp. Therefore, residents remain living in a transient or liminal condition.

Some have pointed to the irresolvable complexity of Kurds and Yazidi spanning the three countries of Turkey, Syria and Iraq, indicating that this condition may become a permanent **'super-camp' the longer the situation continues**.


Image © 2023 CNES / Airbus

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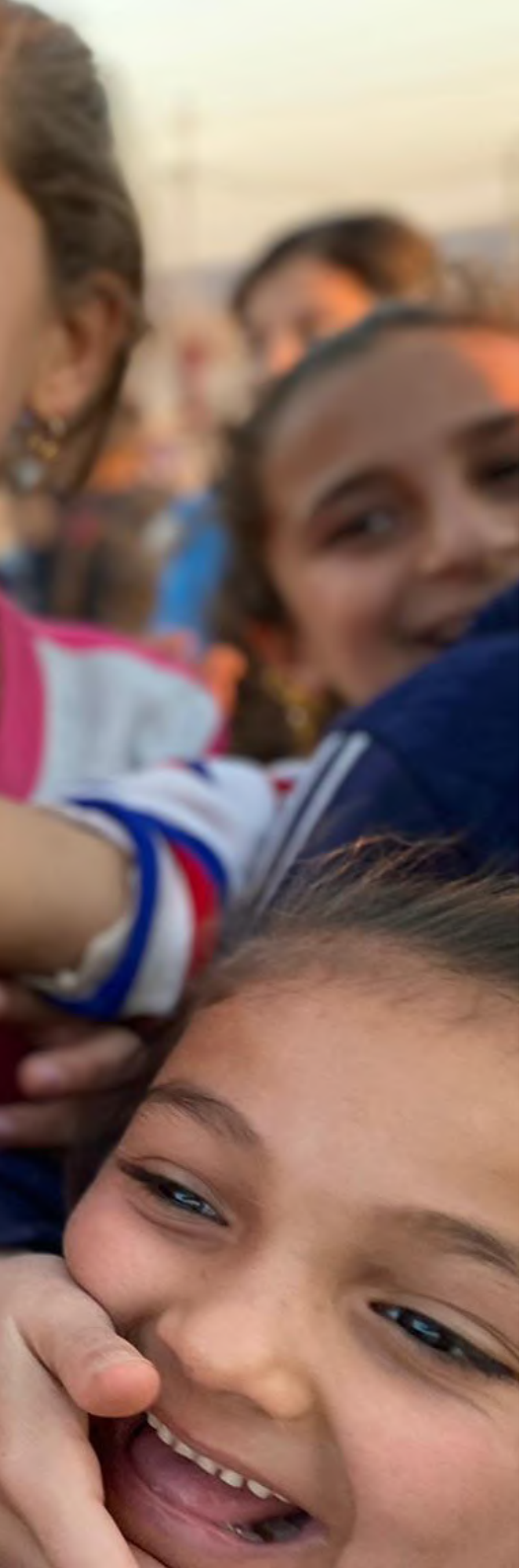
03: Cultural and Political Context



Yazidi People

The **Yazidi people are ethnically Kurdish, and are found in Kurdistan, Syria and Southern Turkey**. Numbering 700,000 people, they have maintained their religion and culture spanning many centuries. Their religion is derived from aspects of Zoroastrianism, Christianity and Islam, a syncretic approach which has been mis-interpreted as sect-like.

As a minority group they have been on the receiving end of **periodic persecution, oppression and genocide**, in recent times and throughout history. In the Bersive 2 Camp the majority **over 90% of inhabitants** belong to the Yazidi minority, who formerly lived in the **Mount Sinjar** region and fled during the **2014 massacre when ISIS attacked** and decimated the region.

Many residents have been living in the camp **since 201**4. In actuality, few of the Yazidi inhabitants have returned to their homelands since and the prospects of return in the near future are uncertain as the Sinjar region is still unstable.

The **ISIS-initiated civil war** and sectarian violence, resulting in ethnic cleansing, persecution, slavery and genocide during 2014-19, spanned both Syria and Iraq, significantly impacting the eastern regions of Kurdistan, including important cities such as Mosul and Sinjar.

This led to the **large-scale displacement of peopl**e and at its peak resulted in an estimated **16 million displaced persons and refugees, with 2.6 million settling in Kurdistan, constituting 28% of Kurdistan's population**, the majority of those displaced being minority groups.

According to present evaluations in 2022, there are almost **1 million officially registered IDPs** from Iraq and Syria living in Kurdistan according to the KRG Ministry of Interior: Bureau of Migration and Displacement, of which approximately **260,000 persons live in one of 26 active camps** in Northern Iraq.

As of September 2022, there are roughly **175,000 IDPs and 94,000 refugees** in these camps in the Dohok region, the largest camp having a population of 22,000, with an average camp size of 10,000 persons.

Bersive 2 Camp has 9000 residents or 1700 families living in tents. Of these residents a very high percentage is under 18, in part due to the large family size. with a high number of children who were born since 2015 and who have been raised in the camp itself.

In Bersive 2 Camp there are also **7% chronically ill residents, 3% who are disabled or injured from the war and 7% of families who are headed by females** (largely due to the decimation of Yazidi males by ISIS). There is also a high level of unemployment due to the scarcity of opportunities in or nearby to the camps as the camps are mostly sited away from towns and settlements.

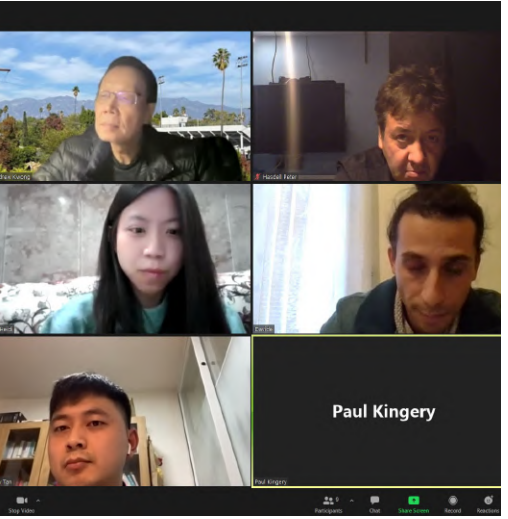
04: Project Collaborative Framework

Collaborative Framework

The collaboration was initiated by HIS Foundation and Habibi International, two NGOs that specialise in health, rehabilitation, wellness and counselling for displaced communities in Northern Iraq. Both had been working in the camp and other nearby camps for some years. In 2020 they negotiated the use of a piece of land in the Bersive camp and decided to provide a community centre facility for the camp inhabitants. Both organisations are the client and funders for the project and provide project management as well as operational management of the completed facility.

The projects collaborative design team includes **Insitu Project**, ABCD Collaborative, and Vide Terra, for the planning and design of the buildings as well as Catalyst Action for the collaborative design with the kids of the playground in the courtyard.
The collaboration in design was conducted by a series of online design review meetings spanning Iraq, Hong Kong, the USA and Italy, spanning 6 months involving all collaboration partners.

This was followed by onsite collaboration to enable construction and realisation of the project. Habibi International, HIS Foundation and MedEast, with Vide Terra providing construction and implementation including participatory construction using a local camp inhabitant team to learn construction and Superadobe construction.


Paul Kingery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05: Project Aims

Project Aims

The Habibi Community Centre's aims were:

- Developing a **functional Community and Health Facility**: Design and provide the functional requirements for the community and health facility.
- **Enabling community skill development:** Use of participatory construction processes (Superadobe) in the construction of the community hall as transferrable skills for participants.
- **Initiating circular material resource systems:** Enable the use of local earth as the primary material for the Superadobe walls of the Community Centre, supplemented by the use of recycled glass bottles to make three unique windows in the centre. This includes the stimulation of local resource management, capacity and creativity.
- **Strengthening community resilience:** Enable community placemaking and resilience by fostering community pride and contributing to increased cohesion.
- **Enhancing environmental building principles:** Enable low-tech solutions to enable passive microclimate design in the thick earth walls of the community hall. This reduces the need for additional heating and cooling in seasonal temperature and humidity cycles and contributes positively to the community hall climate modulation.

06: Design

Description

Refugee and Internally Displaced Persons camps are characterised by an **absence of 'place,'** therefore, place is very important for transient people inhabiting the camps. The Habibi Community Centre provides a place visibly and materially distinct from the camp's impermanence.

The community centre provides a place for **health and wellness**, including childcare, dental, surgical rehabilitation, trauma counselling, women's groups, education, and a community hall open for a wide range of community activities.

Arranged around a **courtyard** and children's playground, the primary facility is the **Superadobe community hall**, built using local earth as the building material and local labour. The hall anchors the centre and provides a recognisable **oasis for cultural and social gatherings.**

The centre contributes to the **positive development of the community** in the camp. Provision of a unique place can make a difference to the camp residents, in three key ways:

Firstly	Through the provision of **health and wellness** needs.
Secondly	As a **participatory project** in part built by the community.
Thirdly	As a combined hardware and software approach that **openly facilitates community strengthening**.

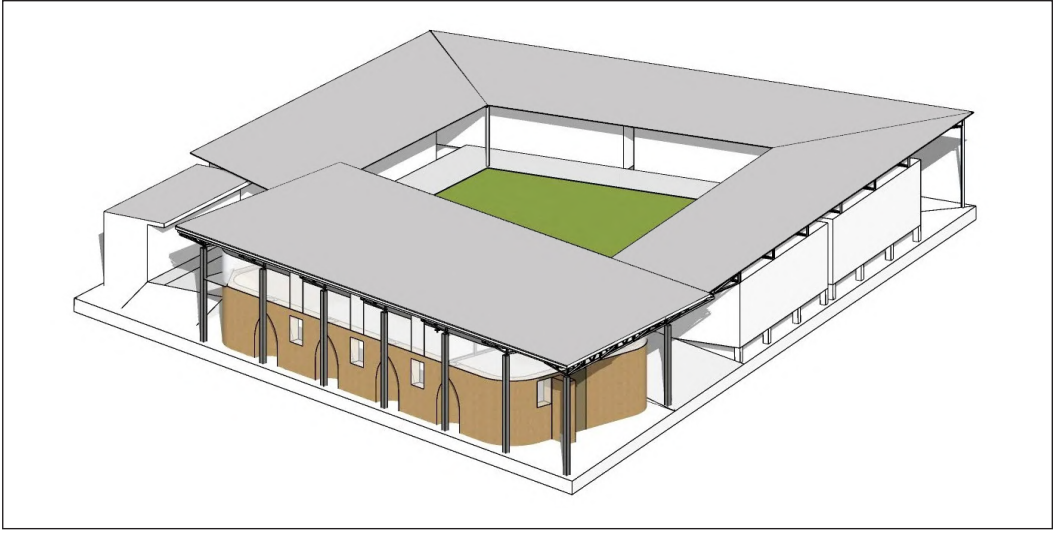
These factors recognise the damaged communal, social and cultural ties of the residents and the trauma's that led to their current situation. The facility provides mechanisms and support to begin to address community traumas.

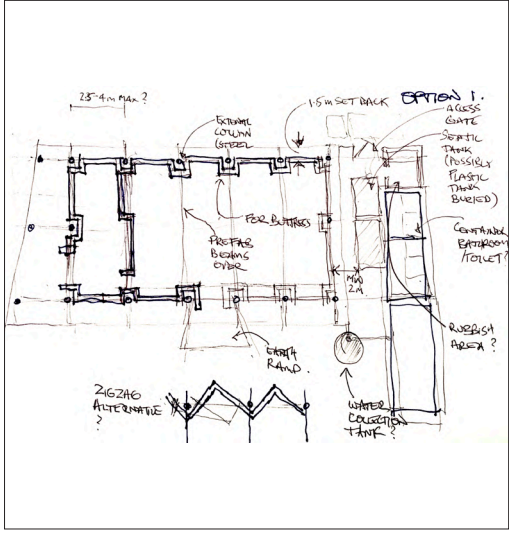
Viable economic principles manifested in the construction of the community centre were two-fold: Firstly to use circular material economy principles and local material availability (earth) to construct the community hall as far as possible,

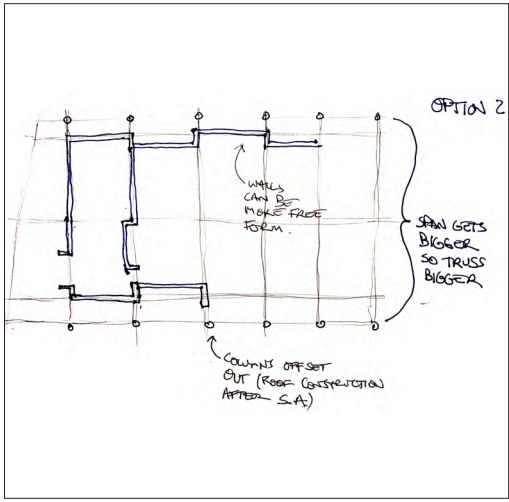
and secondly, to engage and pay **local inhabitants to learn transferrable skills** helping to construct the community hall. They are now able to make prototype Superadobe self-built dwellings that respond better to climate, comfort and human needs to replace tents in a second stage.

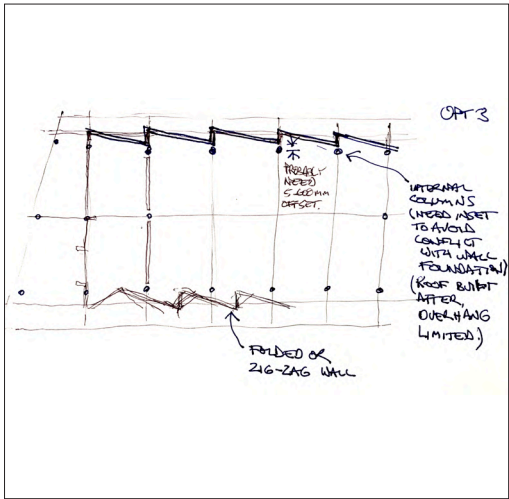
New pathways **enabled local material use, cultivated capacity and assisted community capabilities**, which were essential steps in a **resource-depleted environment** such as Bersive Camp #2. The **enabling of appropriate solutions** was designed with this in mind, at that same time placing dignity as a precondition for the architecture rather than seeking technocratic or inappropriate industrial solutions (use of concrete block, for instance). The **engagement of the local citizens as participants** in the process is essential to this.

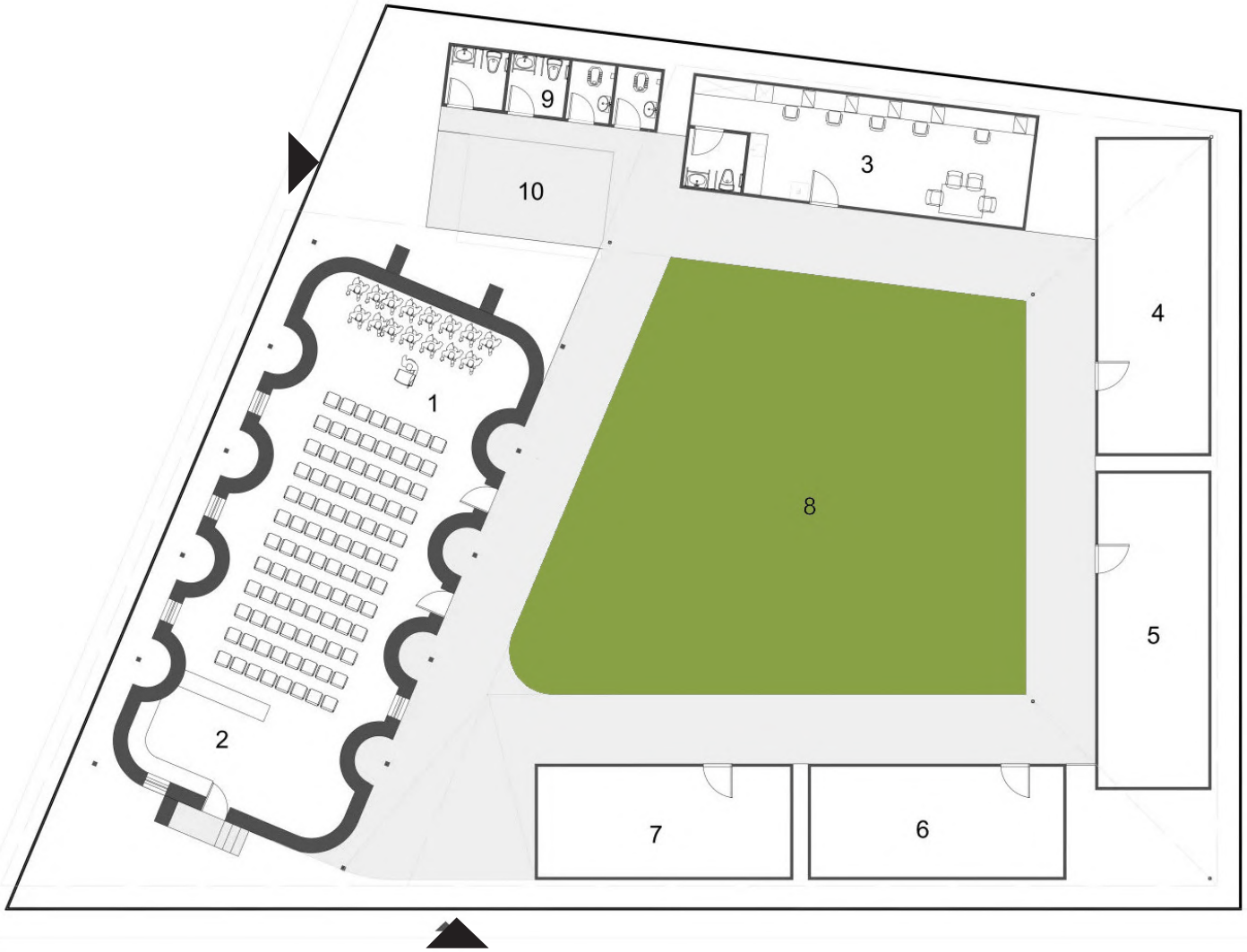
The community centre provides in **providing a stable oasis** and **courtyard for civic activities**, and seeks to instil a **sense of ownership and civic pride**. The contribution as a **place for cultural and social gatherings** for the community, also fosters hope. It enables **restoration of the abilities** of the community to make **positive change** in more permanent ways than the current tent buildings provide.




25-4m max ?
1.5m SET BACK
OPTION 1.
ACCESS GATE
EXTERNAL COLUMN (STEEL)
SEPTIC TANK (POSSIBLY PLASTIC TANK BURIED)
FOR BUTTRESS
CONTAINER BATHROOM / TOILET
PREFAB BEDING OVER
RUBBISH AREA ?
EARTH BAND.
ZIGZAG ALTERNATIVE ?
WATER COLLECTION TANK ?

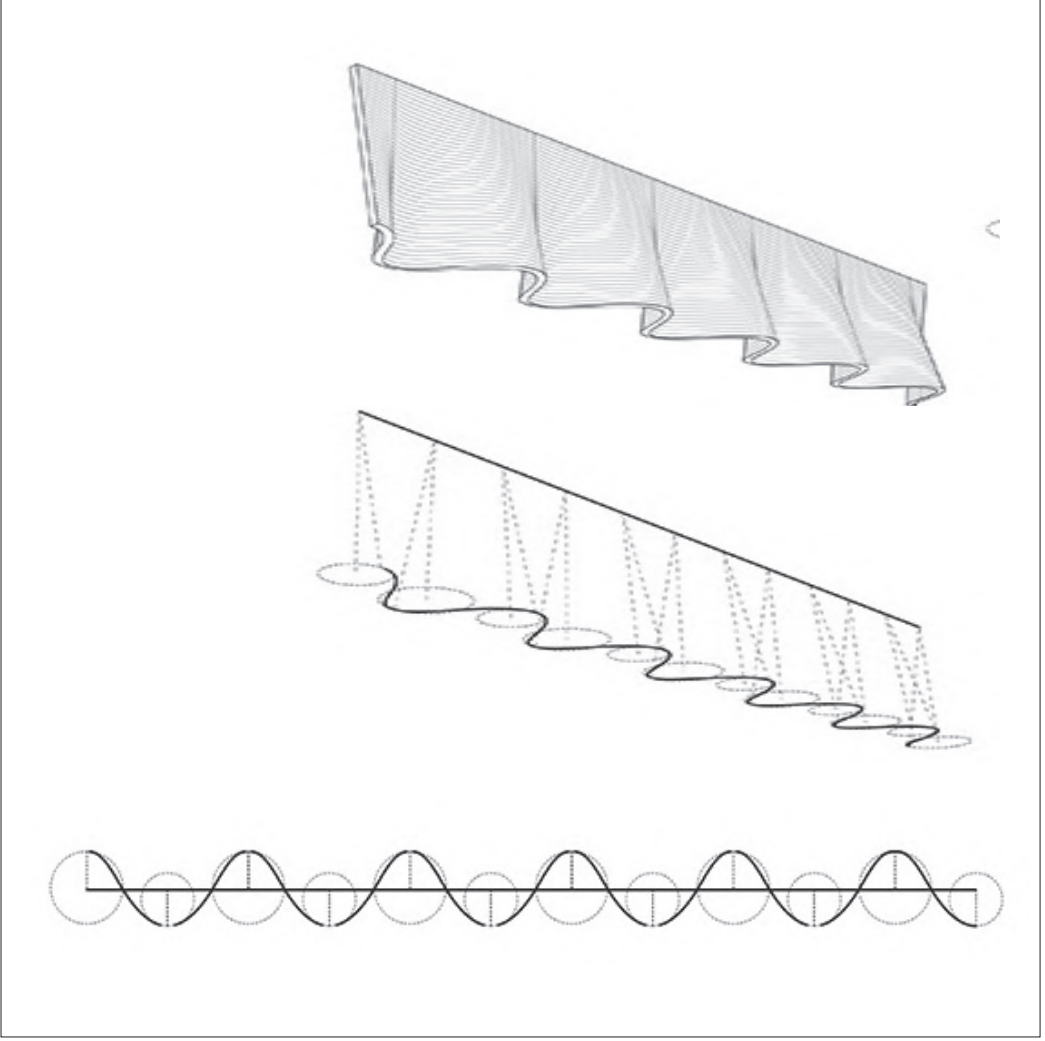

OPTION 2
WALLS CAN BE MORE FREE FORM.
SPAN GETS BIGGER SO TRUSS BIGGER
COLUMNS OFFSET OUT (ROOF CONSTRUCTION AFTER S.A.)

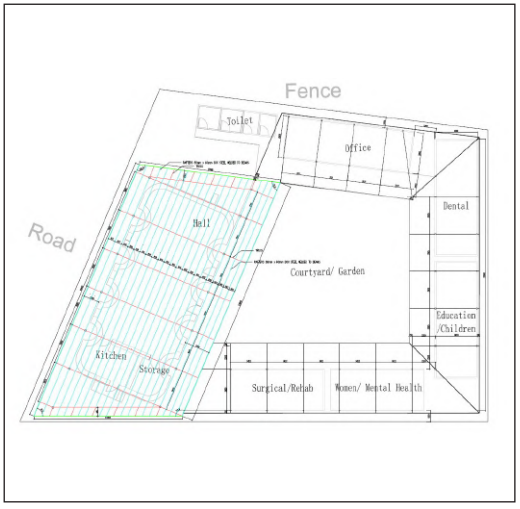

OPT 3
PROBABLY NEED 5-600mm OFFSET.
INTERNAL COLUMNS (NEED INSET TO AVOID CONFLICT WITH WALL FOUNDATION) (ROOF BUILT AFTER, OVERHANG LIMITED)
FOLDED OR ZIG-ZAG WALL

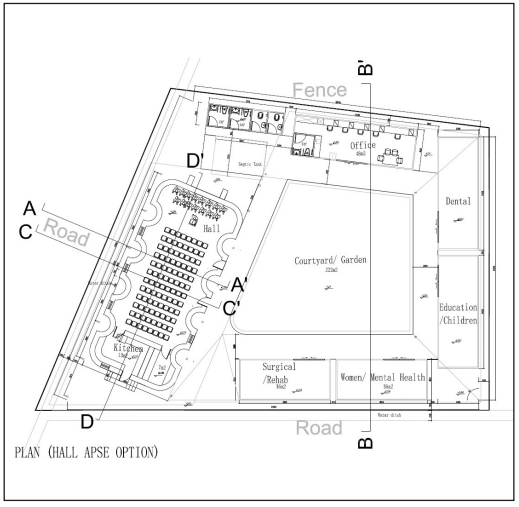


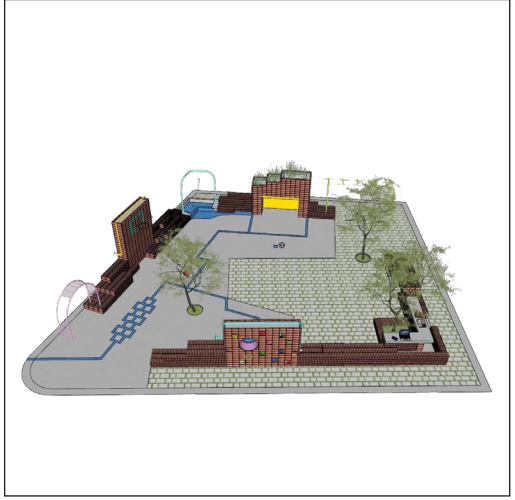
1. Superadobe Community Hall
2. Community Kitchen
3. Office container
4. Dental Container
5. Education container
6. Women / Mental health comtainer
7. Surgical / Rehabilitation Container
8. Co-designed playground
9. Toilet and amenity block
10. Septic Tank

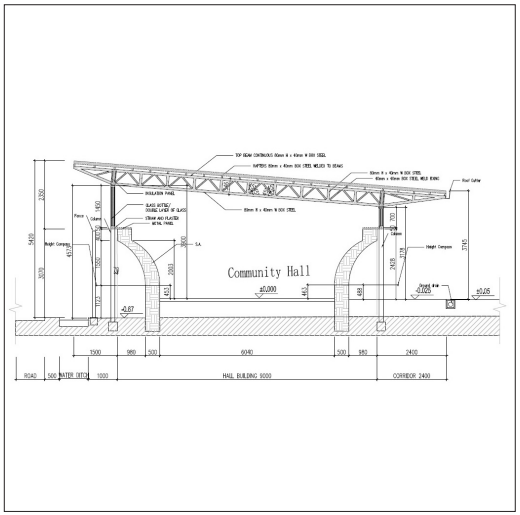
0 5 10m

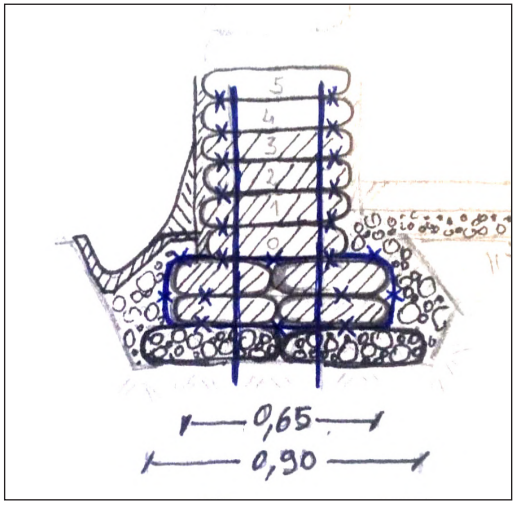



Fence
Toilet
Office
Dental
Hall
Road
Courtyard/ Garden
Education
/Children
Kitchen
Storage
Surgical/Rehab
Women/ Mental Health


B'
Fence
Office
D'
A
C
Road
Hall
Dental
Courtyard/ Garden
A'
C'
Education
/Children
Kitchen
Surgical
/Rehab
Women/ Mental Health
D
Road
B
PLAN (HALL APSE OPTION)




Community Hall
±0,000
-0,07
HALL BUILDING 9000
CORRIDOR 2400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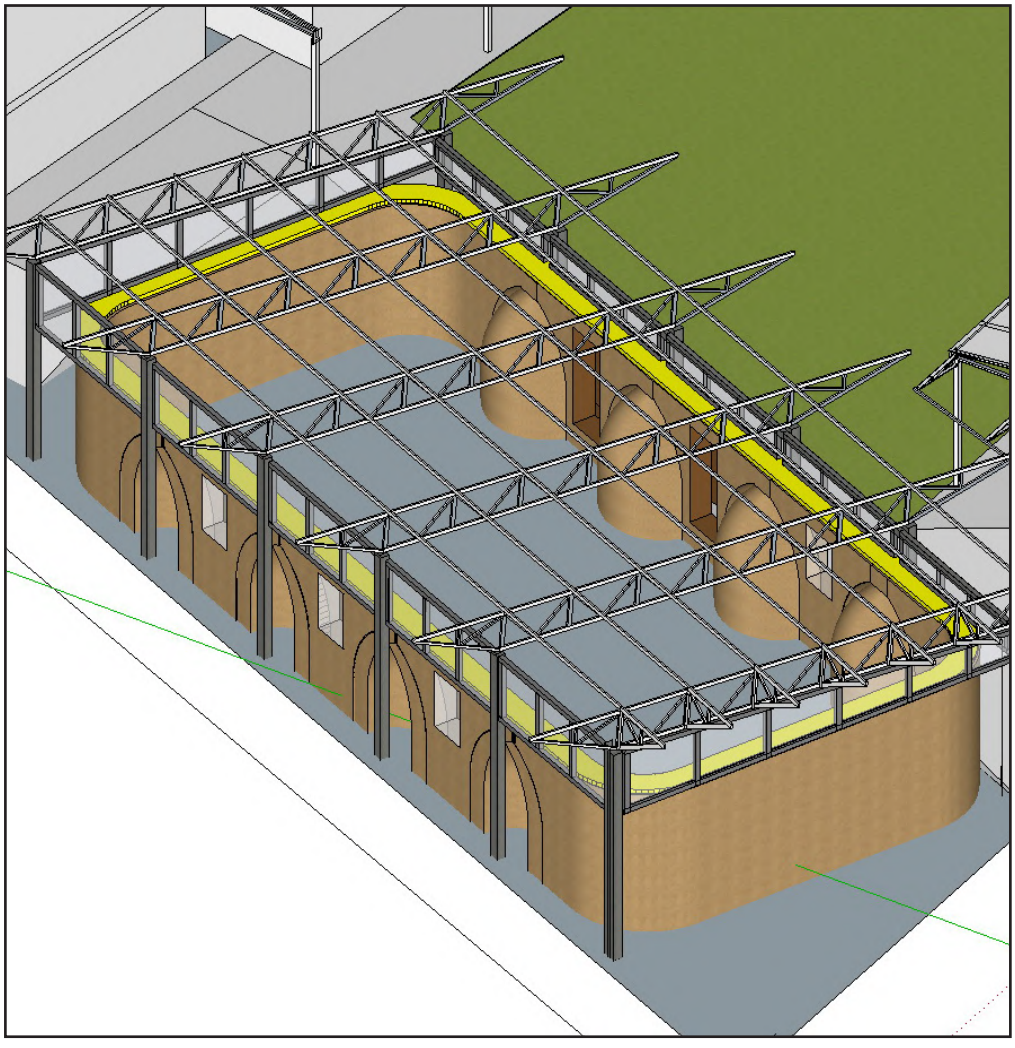


07: Design Programme

Design Programme and elements

The centre provides essential healthcare and community facilities including medical and dental clinics, a dedicated women's and children's place, amenities for community activities including a community hall with a kitchen, a co-designed playground as well as sanitary facilities.

The centre has a courtyard with a surrounding roof providing shade. Healthcare facilities are situated in the container buildings, whilst the community hall was designed to be built by Superadobe construction, distinctly different from the basic concrete block, container or tent structures of the camp.

The five main elements of the centre are:

i) Superadobe Community Hall

With the limited resources and financial capital, the design team and collaborators agreed to use soil as the main construction material. Free and abundant, it allowed the construction technology of Superadobe, a process invented by an Iranian-born architect, Nader Khalili. This was a simple and efficient, structurally stable and approach. It allowed for rapid construction using local material resources and unskilled labour. Davide Frasca, a Superadobe expert from Italy was partnered to provide on-site training to local people and they were able to master the skills with the simple but innovative methods. On-site training of locals allowed for rapid construction, providing transferrable skills.

ii) Readymade Container Buildings

Healthcare amenities used custom-made containers. On-site training of locals helped in construction processes including siting, foundation, services, fitting out and roof construction.

iii) Courtyard Central Space

Development of a communal courtyard to provide a safe space for the community and facility users, including the many children. The courtyard is conceived to provide inward-looking spaces with shaded walkways, and the capacity to collect rainwater, whilst providing space for the recreation amenities.

iv) Recycled Glass windows in Community Hall

Discarded bottles collected from the wider community were used to make feature windows in the Community Hall. This involved cutting and gluing glass bottles of different sizes and colours. Local participants designed the pattern according to the amount of colours collected. The 'Tree of Life' was the resulting theme. A strong sense of accomplishment resulted and people came to take photos at different times to see the change in colours with the sunlight.

v) Co-Designed Playground

Initial ideas for the courtyard included a volleyball court, farming, gardening, BBQ and outdoor seating. Once the children from the camp were asked what they wanted, it became a playspace. Catalytic Action facilitated a co-design process with children. The playground was built following the collective ideas of children, and it increased their sense of belonging.

08: Construction

Participatory construction process

The centre was constructed by the collaborating partners, with the overall construction management coordinated by Dr Paul Kingery (MedEast) and Davide Frasca (Vide Terra). They coordinated and supervised the Superadobe construction of the Community Hall. The core elements of the construction process included:

i) Site Preparation and Foundations

Site preparation included levelling, survey and set out, as well as site drainage and building set out. A perimeter security fence was established. Servicing included water and electricity. Since no settlement sewerage was available, an underground septic system was constructed. An emergency generator was also positioned.

Pad foundations were installed for container buildings and for column supports for roof structures.

The community building foundations were comprised of compressed gravel with 3-4 layers of Superadobe bags that allowed for some movement and settlement of the walls as the weight of the earth compresses the wall over time.

ii) Container Buildings

Prefabricated container buildings were made off-site and delivered to the site, craned into position, and connected with services as required. Some fit-out and finishing was required for all five containers.

iii) Superadobe Community Hall

Construction in Superadobe required the training of local participants involved in filling, placing and tamping of each layer. Barbed wire was placed between layers to bind them. Placement of layers needed to take account of the apses and openings according to the plan and elevation. The finished layers were rendered with lime, earth and plaster mix.

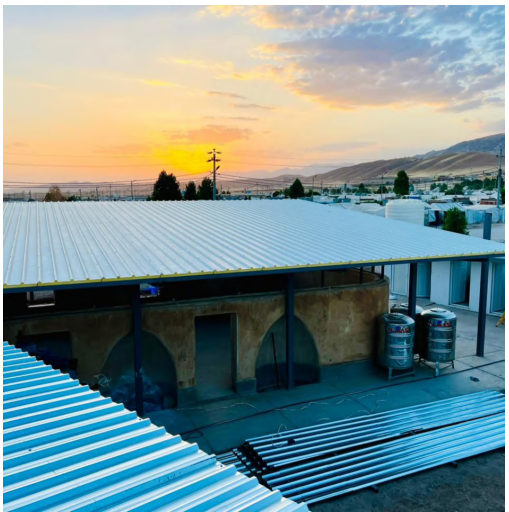
iv) Roof Structures

Simple angle steel frames fabricated onsite were erected over all the containers, and galvanised corrugated sheets provided the roof covering.

A fully independent roof truss for the community hall was also fabricated onsite and welded to steel roof columns. This was finished with insulated corrugated galvanised steel panels.

v) Recycled Glass Windows in Community Hall

Discarded bottles cut and joined with silicon were arranged in steel frames and placed as clerestory lights in the community hall.

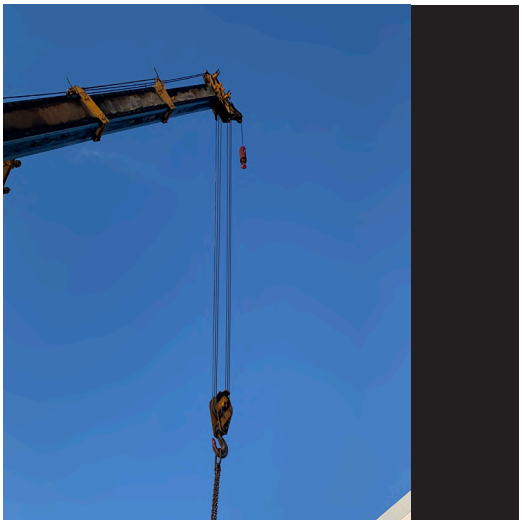







DAEWOO

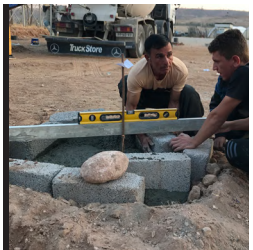


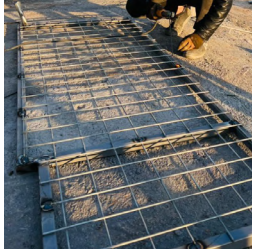







TruckStore

TruckStore













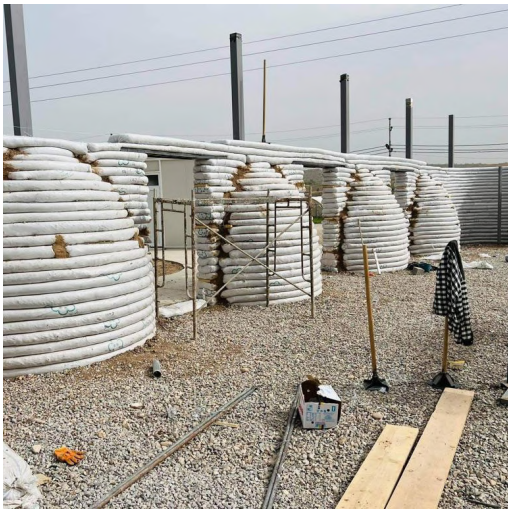














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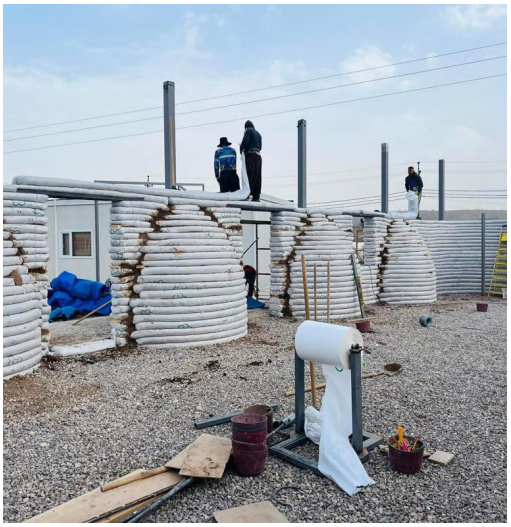

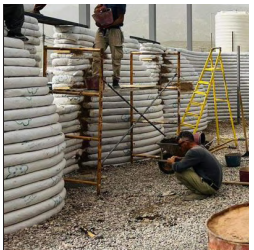

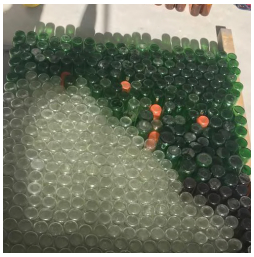

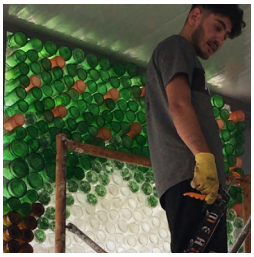


ASP

09: Technical and Ecological Performance

Performance

Technical performance

The technical performance of the Habibi Community Hall design includes:

- **Technical Description**

  The community hall is constructed of Superadobe walls made of earth-filled long plastic bags layered and tamped. The walls have apses to provide longitudinal stiffness and are rendered with earth mixed with lime. A clerestory polycarbonate window above the earth wall lets light into the hall. An independently structured steel-framed single-pitch insulated roof covers the hall. Two recycled glass bottle windows provide a feature. The additional buildings are custom-made container buildings providing basic amenities for necessary functions and are covered with a steel frame and additional corrugated roof to provide additional protection from solar gain and shaded walkways. The facility is serviced by an underground septic tank and an emergency generator.

- **Material resource limitations**

  Arising from UNHCR and Bersive 2 Camp Management material restrictions and regulations that limit built works to non-permanent constructions primarily using tents, steel frames and sheet roofing, concrete blocks and custom-made metal containers. The use of earth walls was negotiated with the Camp Management. Material resource cost and availability: limited material availability in the region resulted in the combination of custom-made metal locally fabricated containers with Superadobe technologies using locally sourced earth. Of note, the earth walls allow for return to an unbuilt state with a minimum of waste residue should the facility no longer be required.

- **Construction criteria**

The capacity for construction to be carried out by relatively untrained local residents under supervision, in particular - the setting up of the containers, preparation of foundations, fabrication of steel framework and roof structures, concreting, septic tank and plumbing; and construction of the Superadobe community hall involving preparation and construction of the earth bag walls and application of finishing render to these. This involved extensive supervision and on-site training by Dr Paul Kingery in construction and Davide Frasca in Superadobe.

Ecological performance

The positive ecological performance and outcomes of the Habibi Community Hall include:

- **Sustainable development principles**

  Application of SDG towards zero carbon by using the earth as a low-carbon impact construction material reduces impacts. This, combined with the use of upcycling methods in the glass bottle windows, is a way of building.

- **Passive climate control**

  Use of earth walls to provide thermal mass reduces the thermal variations experienced by the Hall (the north Kurdistan's climate ranges from 36 to -2 degrees Celsius) as well as the need for supplementary heating in summer or cooling in winter.

- **Passive microclimate design**

  Shading roofs reduces the heat gain of container buildings. These can be fitted at a later date with solar panels.

- **Water and waste management**

  Metal roofs provide the opportunity to harvest rainwater from the roofs in future. A septic tank is provided for the whole facility.

10: Credits and Acknowledgements

People and Organisation

Project name
Habibi Community Center, Bersive Camp 2 Iraq

Location
Bersive Camp 2, Zakho, Iraq:
https://goo.gl/maps/xiY7ZB92RVyFoZAJ6 (37.179878, 42.862508)

Project Client and Management
HIS Foundation: Andrew Kwong (client / founder / director)
Habibi International: Willy Tan (client / founder / director), Heidi Tan, Jonathan Su (project supervision and coordination)

Project duration
Design: May 2020-Apr 2022
Construction: Jan 2022- Oct 2022

Funding
Habibi International: (Project overall funding)
HIS Foundation: (Superadobe hall funding)

Project design
Insitu-Project: Peter Hasdell and Tan Ming (Project overall design)
ABCD Collaborative: Chan Hei, Chelsea (Project overall design)
Vide Terra: Davide Frasca (Superadobe design)
MedEast: Paul Kingery (Glass bottle windows design)
Catalytic Action: Giulia Galli (Playground design)

Project construction
Vide Terra: Davide Frasca (Superadobe Building + Training)
MedEast: Paul Kingery (Project Construction Leader), Salim Ali (Building Manager) Hawas Khalil Seje Village (Assistant Building Manager)

Construction team with Bersive 2 camp residents: Aasee Murad, Adnan Kheder, Ahmed Fasel, Ahmed Jassem, Ayaz, Barjas Baber, Dakhel Khalaf, Dawod Alyas, Dawod Hassan, Dawod Hayder, Evan, Farhad Khalaf, Farhan Hage, Farok, Feras Ali, Ghaze Fysel, Hagi Ato Abbas, Hassan Hndko, Hussein Hassan, Hussein Khalaf, Hawas Khalil, Ibrahim Khalaf, Ismail Kheder, Jalal, Jamal, Khalil Alyas, Lsmail Kheder, Marwan, Khudeda, Marwan Tobal, Mejo Murad, Murad Alyas, Naje Hawlo, Nore Khalaf, Omer Khalaf, Othman, Saad Jalal, Salih Kheder, Salim Ali, Samee, Shakeeb, Shaker Hassan, Sleman, Tahseen, Yousif Hussein, Ziyad Derbo, Ziyad Khalaf, Ziyad Kret, Ziyad Qasso

Glass bottle windows construction with local volunteers: Ahmed Naiv, Adnan Khader, Waleed Qawal

Affiliated and External Support
Design for People: Hsieh Meng Hsun Max (Design support)
University of Duhok: Kathleen DeWitt, Dr. Mohammed Sidqi (Tech support)
Superadobe expert: Hooman Fazly (Construction support)
School of Design Hong Kong Polytechnic University: (Project support)

Collaborator Links

Insitu Project:	https://linktr.ee/insitu.prj
ABCD Collaborative:	https://www.abcdcollaborative.com/
Videterra:	https://www.videterra.org
Habibi International:	https://www.habibi-international.org/
HIS Foundation:	https://www.his-foundation.org/
MedEast:	https://medeast.org/
Catalytic Action:	https://www.catalyticaction.org/














11: Insitu Project

INSITU PROJECT

Insitu Project is a research by design platform conducting cross-disciplinary site specific projects including architecture design, spatial and cultural planning, social enterprise formation and workshop and training. Insitu Project enables and activates local conditions towards sustainable and participatory practices. It has operated in villages in many provinces in China since 2015.

As a research platform, Insitu Project founded by Peter Hasdell and Kuo Jze Yi in 2015 it operates out of the School of Design in the Hong Kong Polytechnic University and also from Shenzhen University School of Architecture and Urban Planning. It is run by its founding partners Peter Hasdell and Kuo Jze Yi, who initiate in-situ projects and guide collaborations with academic institutions, funding bodies, NGOs and local community groups.

Web www.insitu-project.com
https://linktr.ee/insitu.prj
Instagram https://www.instagram.com/insitu__project/
https://www.instagram.com/insitu.prj/
Facebook https://www.facebook.com/Insitu-Project
Youtube https://www.youtube.com/channel/UC12eviOW832hBgUE2D-2w5g
Email info@insitu-project.com

While this project is the result of a collaborative effort by multiple parties, the views expressed herein are solely of the Insitu Project (Peter Hasdell) and do not necessarily reflect the views of the other parties.


INSITU
PROJECT

Habibi Community Centre

Bersive Camp 2
Zahko Kurdistan Iraq
2021-2022

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