



DEVELOPMENT WORKSHOP

# Development Workshop

## on Indigenous Building in the Third World

کارگاه توسعه

The Development Workshop is a group of architects, planners and researchers from a number of countries, who work collectively on the development of indigenous building and planning methods in the Third World. Projects have been undertaken in African, Middle Eastern and Asian countries. Members of the Workshop believe that appropriate solutions to human settlements problems can be developed from indigenous methods which have evolved from and remain in the hands of Third World communities.

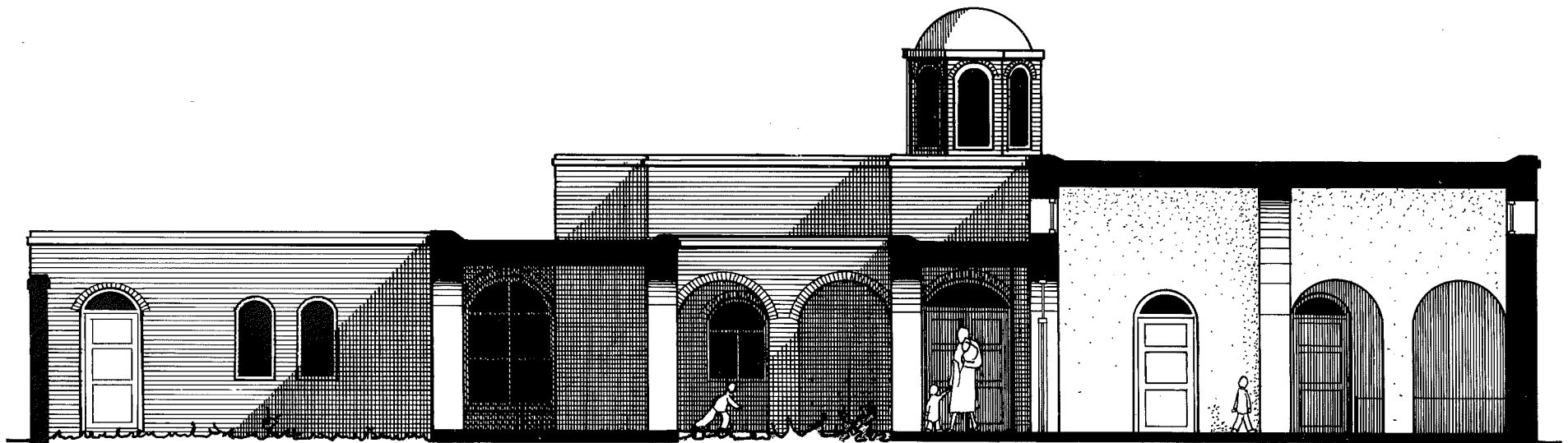
The Development Workshop is interested in carrying out projects in co-operation with government, non-government or international organizations in the field of rural and urban human settlements. The development of small scale construction industries, technical training, and local participation are integral to the Workshop's approach.

Consultants in:

HOUSING & BUILDING  
HUMAN SETTLEMENTS PLANNING  
RESEARCH & DEVELOPMENT

For further information please contact:

co-directors: FAROKH AFSHAR • ALLAN CAIN • MOHAMMAD REZA DARAI • JOHN NORTON

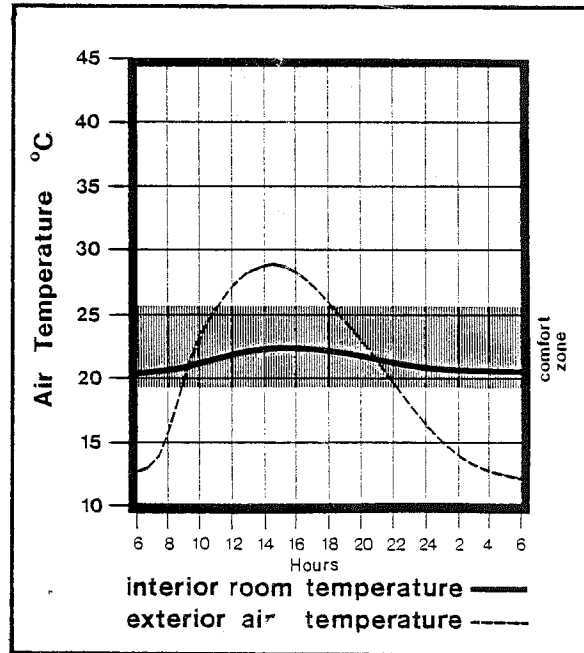


School built in Luristan, Iran.

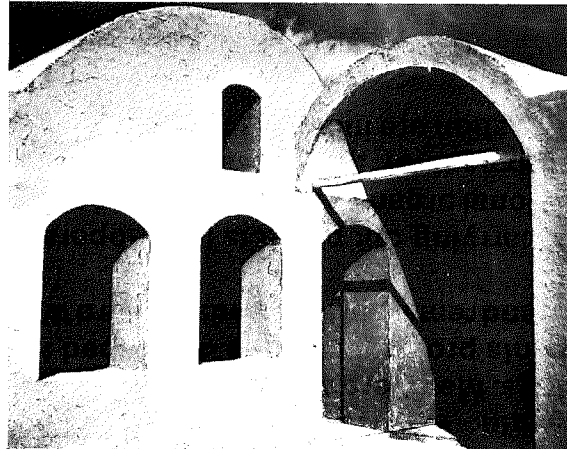
# Research & Development

## RESEARCH & DEVELOPMENT PROJECTS

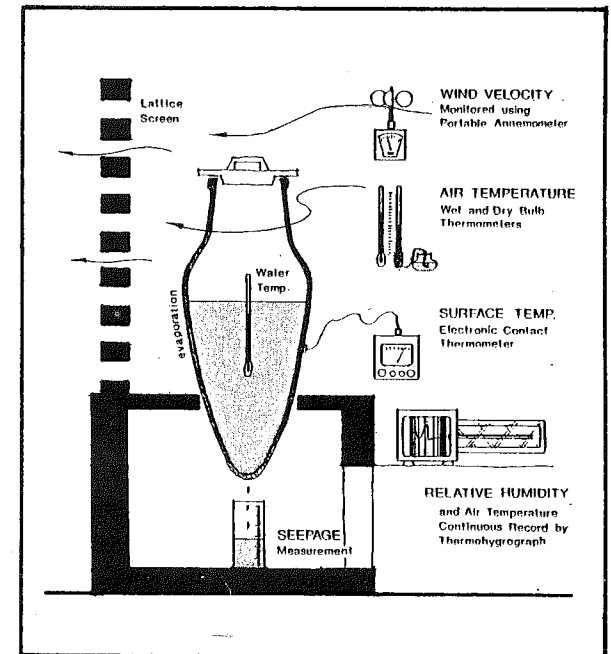
- **“Shelter and the Urban Poor”** — study of squatter housing in Delhi, India, 1972.
- **“Climatic Design and the Performance of Traditional Buildings”**, with Professor Hassan Fathy and the Building Research Institute — Cairo, Egypt, 1973.
- **“Comparative Study of Two Egyptian Villages”** — indigenous versus planned — Gourna, Upper Egypt, 1973.
- **“Indigenous Cooling Systems”** — evaporative water jars, wind catchers, food preservation — Egypt 1973, Oman, Dubai 1973-4, Iran 1977.
- **“Mud Brick Vault and Dome Construction”** based on Nubian system, Egypt 1973.
- **“Survey of Traditional Housing in Lebanon”**, 1973.
- **Research in Oman**, on indigenous building and planning for use in contemporary design and development.
- **“Iranian Indigenous Mud Brick Vault and Dome Technology”**.
- **Built Environment of Luristan, Iran**, 1975-8.
- **“Developing Rural Building in Earthquake Regions”** — based on studies of the Bandar Abbas Earthquake of April 1977 and the Zarand Earthquake of January 1978.
- **Research and analysis of indigenous building methods and industries of the Caspian Region in Northern Iran**, 1978-9. For the Institute for Peasant and Rural Studies.
- **“Development of Rural Building Methods”**, Angola 1979.



Studies carried out in Cairo of mud brick building materials have shown it to possess excellent thermal properties. Methods for improving mud brick's strength and water resistance have also been developed.



Methods of earthquake resistance have been developed for low cost housing and rural building in Iran.

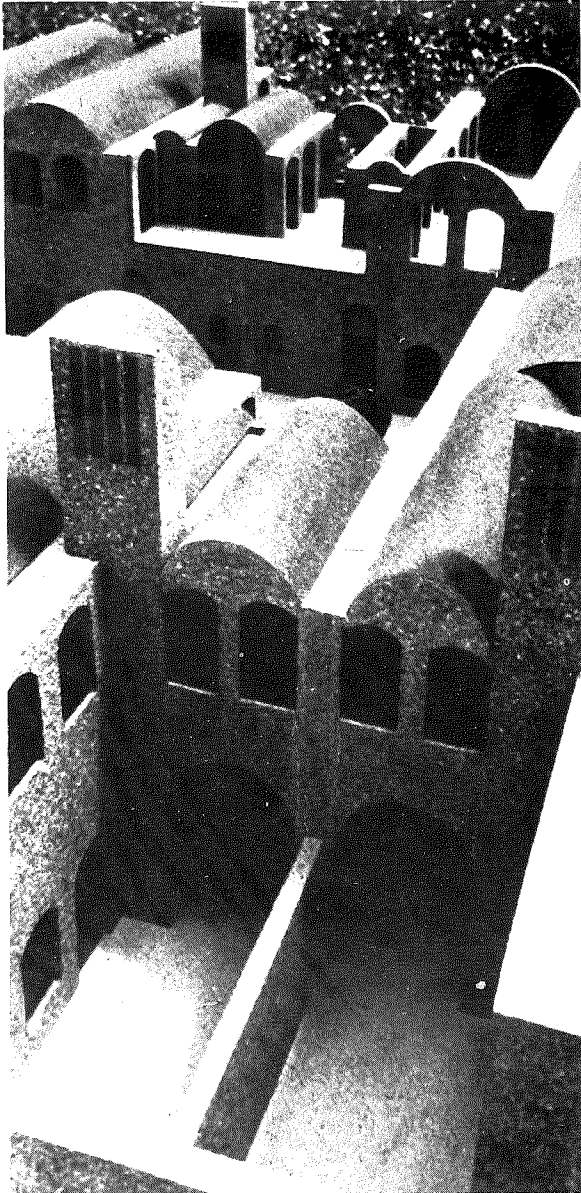


Research on indigenous cooling methods, such as evaporative ceramic jars and wind catchers, has been undertaken in Egypt, Oman, Dubai and Iran. Low energy cooling of living spaces and preservation of food.



Organic materials such as palm, thatch, reed and timber have been studied and improved in Oman, and the Caspian region in Iran.

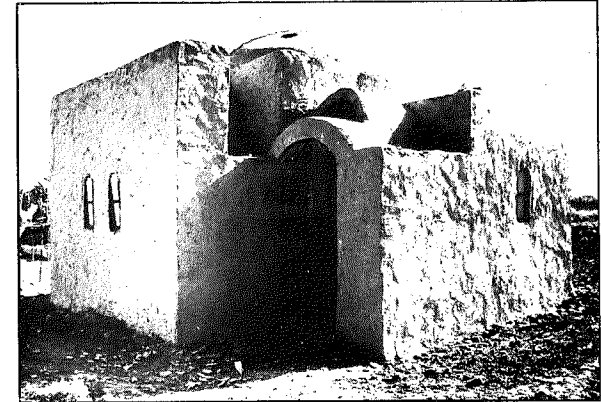
# Housing



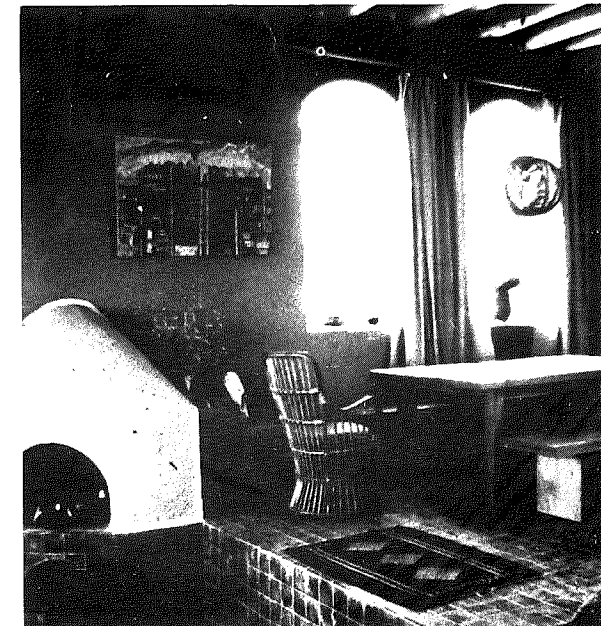
Vault and Dome building methods eliminate the need for expensive imported steel and timber roofing materials. Natural cooling systems using the indigenous wind catcher reduce energy costs in low cost housing.

## HOUSING & COMMUNITY BUILDING PROJECTS

- **Design and construction of experimental housing unit**, utilizing mud brick and Nubian vault and dome techniques. Gourn, Egypt, 1973.
- **Projects in association with Professor Hassan Fathy**. Egypt and Oman, 1973.
- **Delhi Low Cost housing competition** — award from Delhi Development Authority, 1973.
- **“Ideas in Low Cost Housing”** — Indian competition, awarded Mention, January 1975.
- **Rural building projects for the Selseleh Integrated Development Project**, Luristan, Iran 1975-8.
- **Public bath (hamaam) for Niazabad in Luristan**. A village self help project using brick vault and dome construction, 1975.
- **Prototype Solar Hamaams (public baths)** built in several villages in Luristan. Constructed with village participation, using brick vault roofing and designed to be heated by locally assembled solar collectors.
- **Centres for Collective Promotion**, incorporating facilities for health, literacy, and agricultural training. Built in several villages in Selseleh region of Luristan.
- **Health Houses** — clinics built in a number of villages in Luristan.
- **Kindergarten school**. Constructed from mud brick, fired brick and local timber, Alashtar, Iran 1976.
- **Technical Training School** — based on courtyard plan, Alashtar, Iran, 1976.
- **Low Cost Housing for Teachers**, utilizing local materials. Alashtar, Iran 1977.
- **Hospital design** for Char Takteh, Luristan, Iran.
- **Guest/Meeting House** for S.I.D.P. at Sarab Amir. Stone construction 1977.

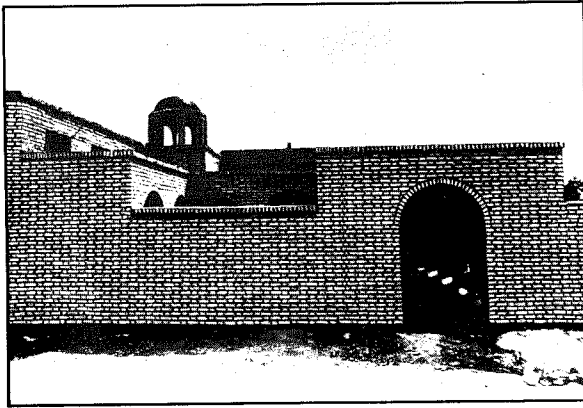


Mud brick vault and dome housing unit constructed in Upper Egypt.

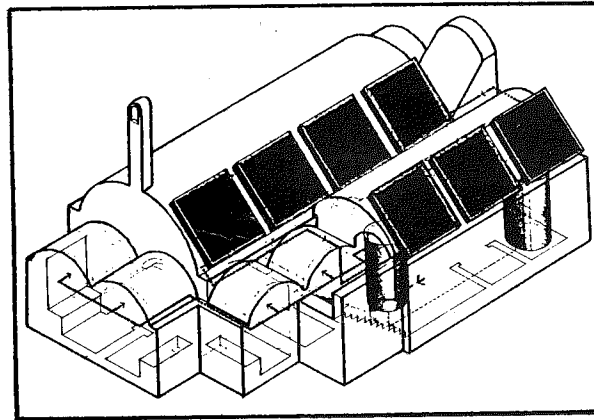


Interior view of guest house designed with local materials in Luristan, Iran.

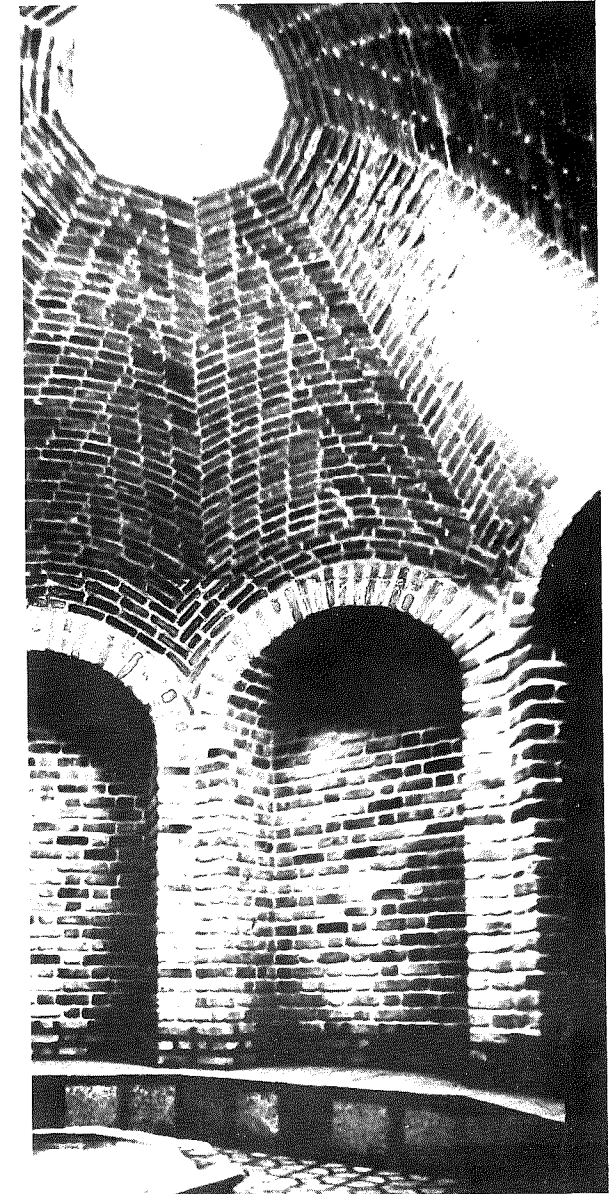
# Community Building



School built on courtyard principle in Alashtar, Iran.



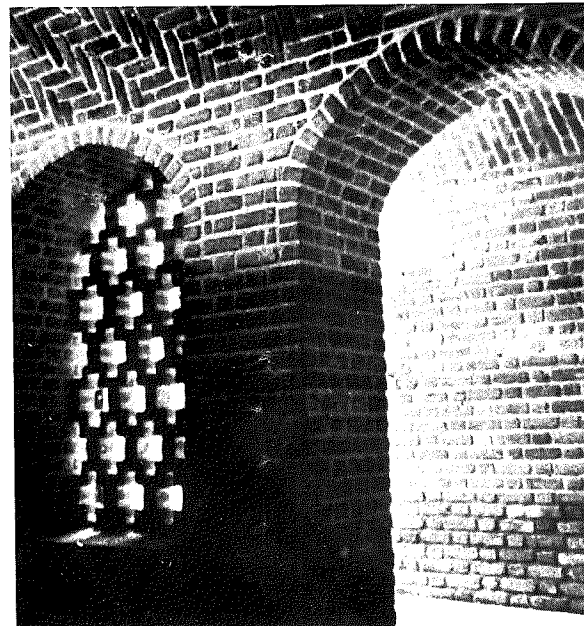
Solar heated village bath houses (hamaams) built in a number of villages in Luristan, Iran.



Interior view of bath house in Niuzabad. A self help village project employing traditional design principles and improved hygenic features.

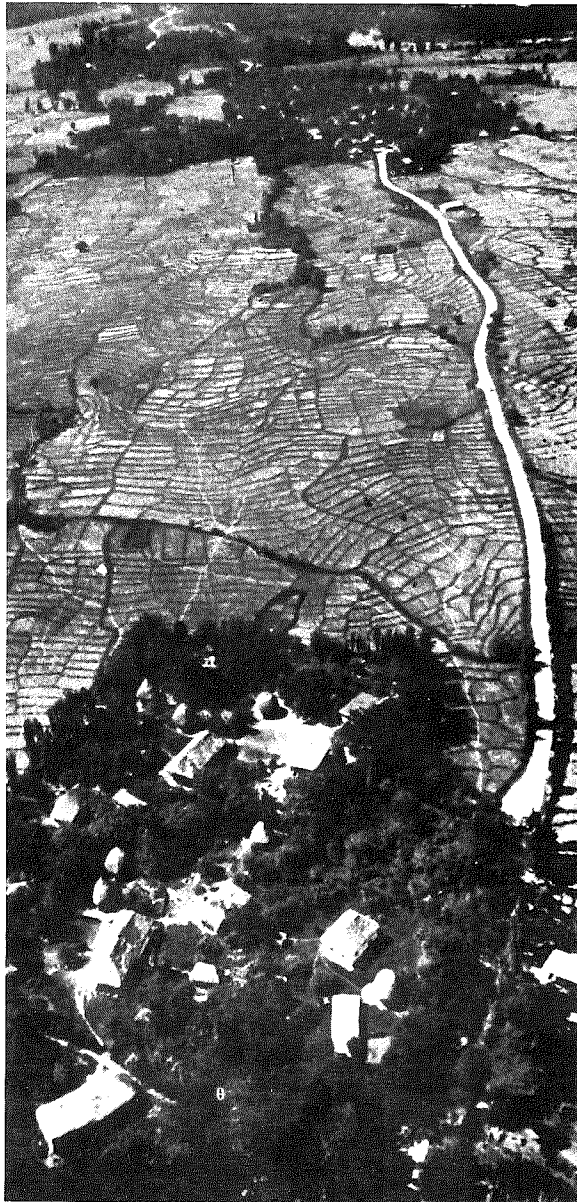


Methods developed to increase spans of local timber for classroom use.



Lattice screen used for privacy in entrance way to bath house, built in Niuzabad, Luristan.

# Settlement Planning

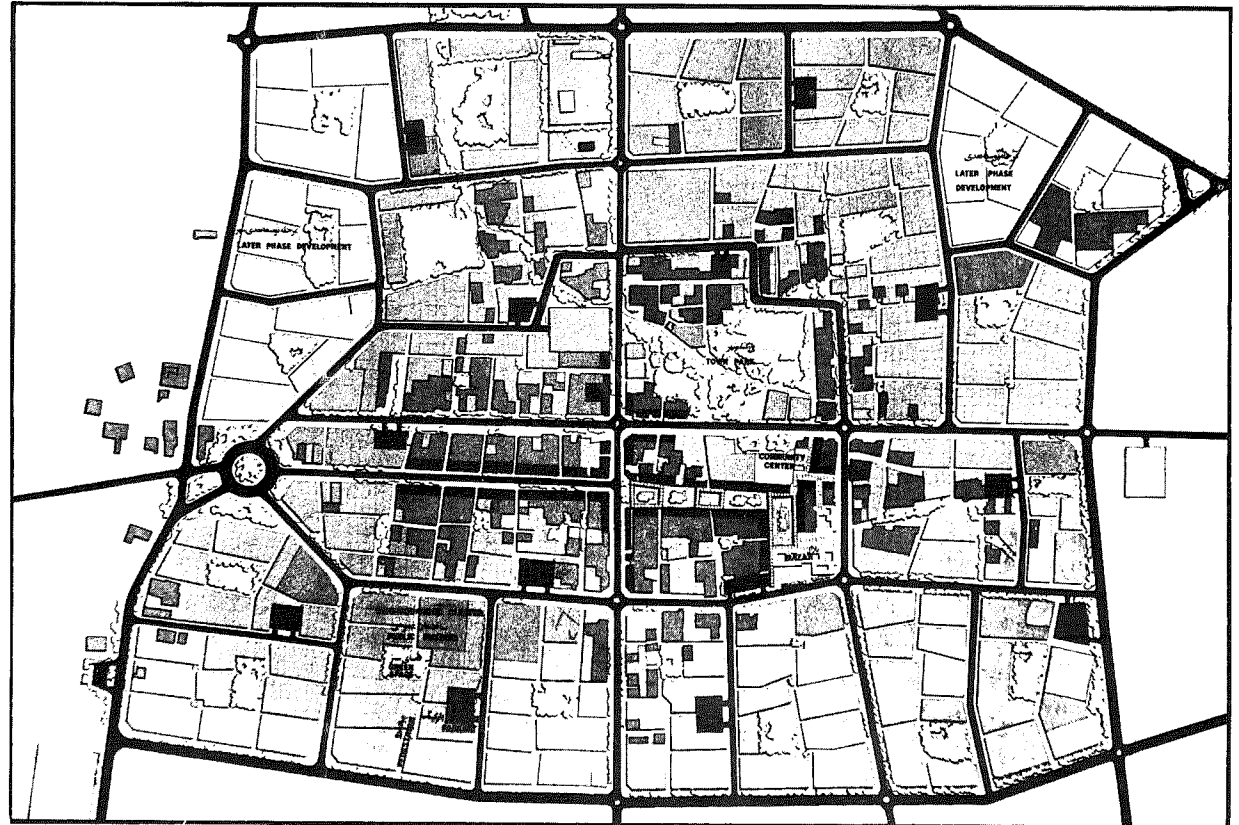


Regional study of planning, housing and building industries carried out in the Caspian provinces of Iran.



Indigenous urban settlement planning research in the  $\Delta$  Old quarter of Cairo. Environmental implications of street, public and domestic space evaluated.

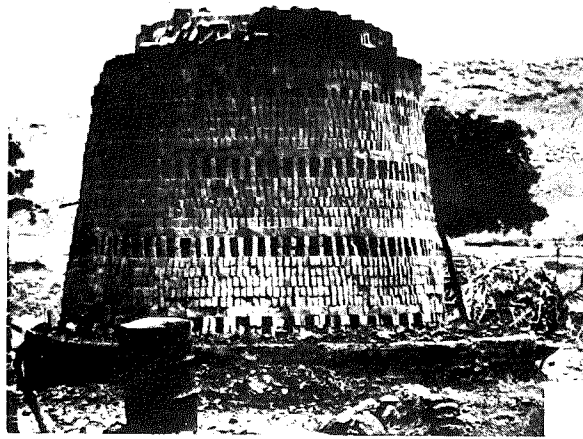
Town plan for Alashtar, Iran, based on the indigenous 'mahaleh' or neighbourhood principle, a model for intermediate urban centres serving rural regions.  $\nabla$



## SETTLEMENT PLANNING PROJECTS

- "Traditional Urban Planning" case study of the Old quarter of Cairo, Egypt 1973.
- "Nizwa Souk" — bazaar area planning proposals to Government of Oman 1974.
- "Buraimi Oasis" — upgrading town centre; preliminary planning study for Government of Oman 1974.
- Rapid Urbanization in Third World Cities — case study of Ankara, Turkey.
- Master Plan for Alashtar, Luristan, Iran — research, design and implementation of scheme 1976-8.
- Regional development study of settlement in the Caspian provinces, for Institute for Peasant and Rural Studies, Iran 1978-9.

# Employment & Education



Brick and lime kilns built as a part of a co-operative programme of village industrialization.



Development of roofing tile and ceramic building industries.

## FILMS

- **“Mud Brick Vault and Dome Construction in Egypt”** illustrating the building of a complete dwelling unit. Carried out under a traditional Nubian master mason. Film shot in Gourn, Upper Egypt, 1973.
- **“Niazabad Hamaam”**. A village public bath is built by voluntary collective work and the assistance of two Yazdi master masons. The design is developed from traditional practice. Film shot in Luristan, 1975.
- **“Workshop for Village Builders”**. Illustrates an intensive training programme where experience is shared, and improved building methods developed. Film shot in Yazd, spring 1977.
- **Video film on “Indigenous Building”**, distributed by the East-West Centre, Hawaii.

## EXHIBITIONS

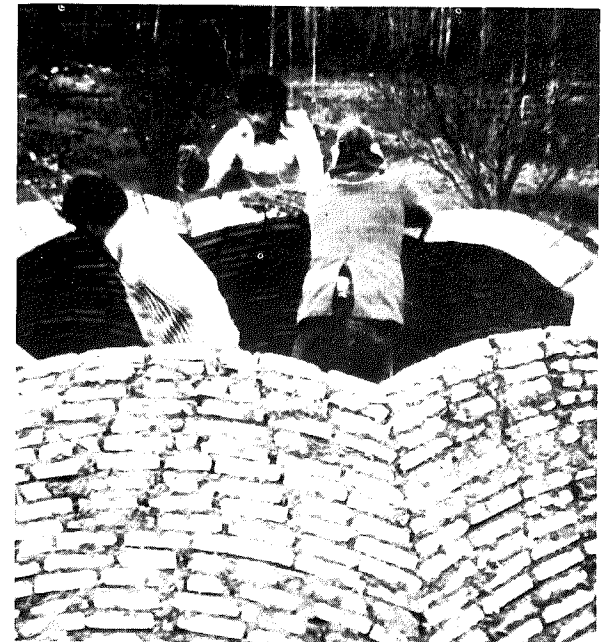
- **Egypt — Indigenous Rural and Urban Planning**. Architectural Association, London, June 1973.
- **Indigenous Building and the Third World** — 40 photographic panels and slide presentation. International travelling exhibition, opened 1976 and shown at Habitat, U.N. “Human Settlements Conference”, Vancouver, Canada. Presently touring.
- **Rural Development and Indigenous Building** — opening Tehran in fall 1978.

## AFFILIATIONS & NETWORKS

- **United Nations Environment Program International Referral System**, Nairobi.
- **International Housing Network (N.E.L.)**, London.
- **International Rural Housing Association**, Venezuela.
- **Architectural Association**, London.
- **Centre for Endogenous Development Studies**, Tehran.

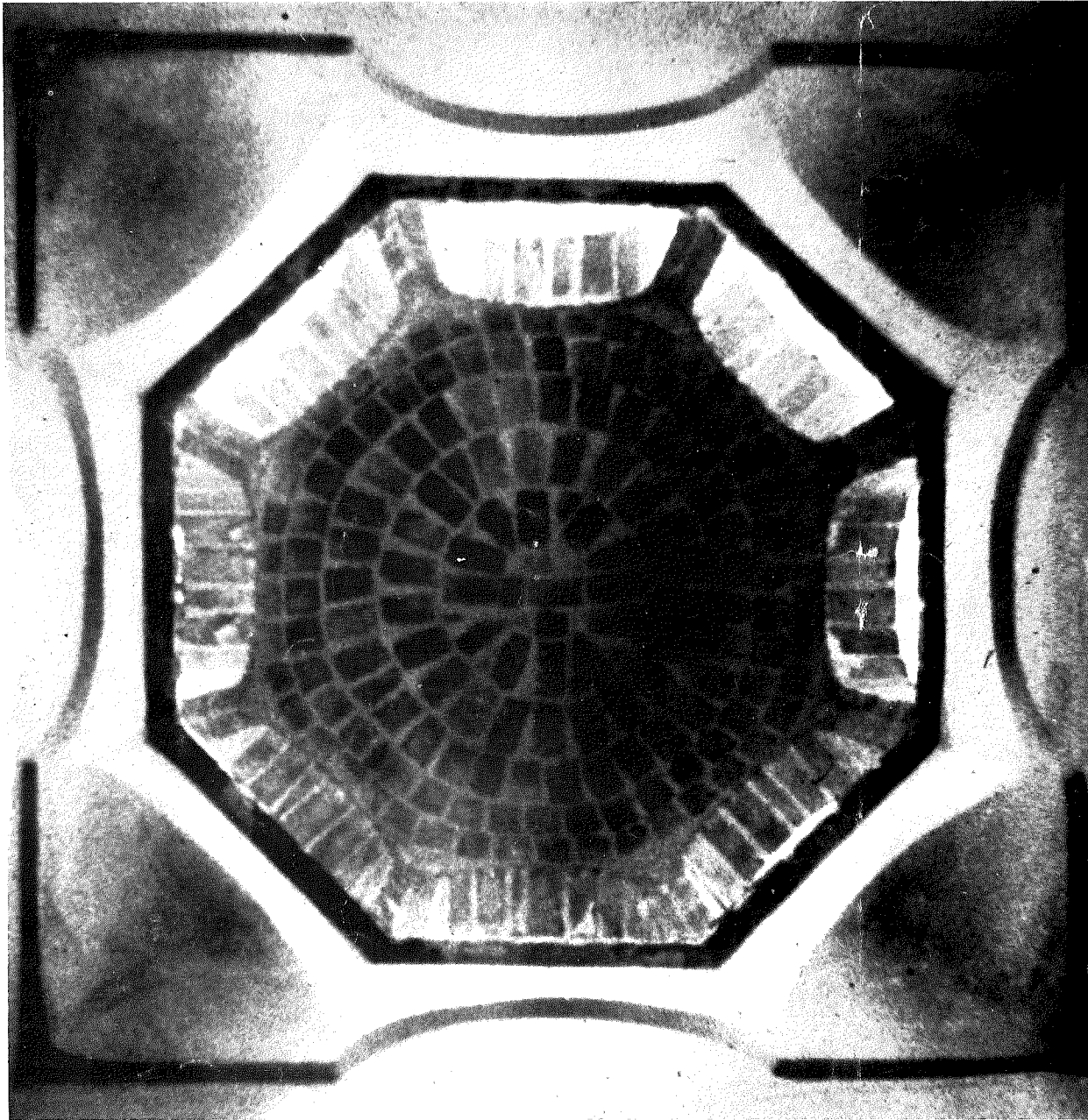


Training workshop carried out to improve technical skills and enrol village builders as development cadres.



Practical ‘on project’ apprenticeship training, utilizing the skills of traditional master builders.

# کارگاه توسعه



## PUBLICATIONS

- **“Indigenous Building and the Third World”** — Architectural Design, April 1975.
- **“Indigenous Building and Rapid Urbanisation: a Case Study in Salala, Oman”** — Architectural Association Quarterly, 1974, Volume 6 #3-4.
- **“Mud-Brick Vault and Dome Technology”** — Appropriate Technology, Summer 1975 (journal of the Intermediate Technology Development Group).
- **“Oman — the Problems and Potentials of the Indigenous Built Environment in a Developing Country”** — commissioned by the Oman Government, 1975.
- **“Indigenous Cooling Systems in the Third World”** — Ecologist magazine, February 1976.
- **Ekistics Magazine** — extract of **“Indigenous Building and the Third World”**, Athens, Greece, January 1976.
- **Behvars Magazine** — excerpts from above, Persian translation, published in Iran, December 1975.
- **“Village Building — the Niazabad Hamaam”** — Architectural Design, May 1976.
- **“Building and Rural Development in Luristan”** - Behvars Magazine, Persian translation, 1977.
- **“Indigenous Cooling Systems”** — Behvars Magazine, Persian translation, 1976.
- **“Indigenous Building and the Third World”** — forthcoming book to be published by Longmans, London.
- **“Manual on Indigenous Methods for Village Builders”** based on Yazd Workshop; being prepared.
- **“The Potentials of Indigenous Building Technologies”** — Communications and Development Review, Vol. 1 #4 Winter 1977.