

Typology:

**House with Iwan**

Country:

Lebanon

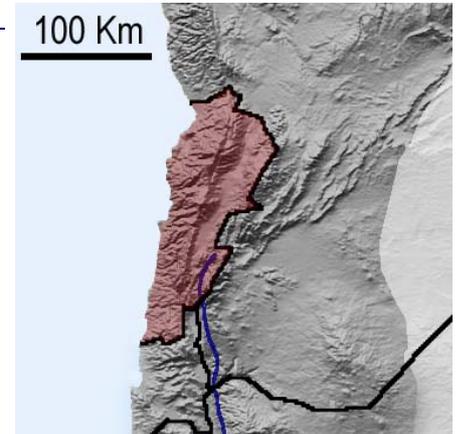


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## SYNTHESIS

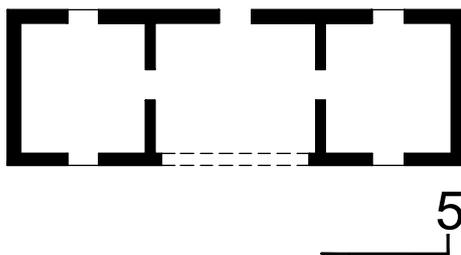
The house with iwan is a three part typology. It is made up of a central element, open on one side to the open air by means of a tall arch called iwan, and two other adjacent elements. This tripartite structure has existed since antiquity, but the iwan of Persian origin and could have been introduced in the Middle East in the XIth century. The iwan is sometimes only one hall. It can seldom take on a T shape, embracing the two sides of side elements. Today, houses with iwans are especially found in mountain environments. But the iwan itself had been also included in middle-class court houses in the coast and inland cities. In this case, it was flanked with a back element used as entryway, and resting area. This typology is increasingly rare in its original state. One often finds it surmounted by a house with three arches, a XIXth century type, and capped with a red tiled roof; the iwan is sealed and replaced by rectangular openings.



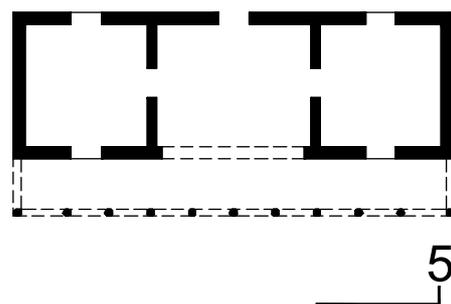
## ANALYTICAL GROUP OF THE TYPOLOGY

rural (Environment)	Isolated or grouped (Implantation)	Fixed (Character)	changing (Origin)	continuous (Use)	rooted (Cultural)	low (Economic level)	compact (Morphology)
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## FORMS OF THE TYPOLOGY



Standard house plan with Iwan



Plan of a house with both Iwan and riwaq

## INVENTORY OF THE COUNTRY'S TYPOLOGIES

Shepard shelter	Court house	Basic house	<b>Iwan house</b>
Nomadic habitat	Riwaq house	Three-arch house	Troglodyte house

## FORMS OF THE TYPOLOGY

### Implantation

Most commonly found on the coast, in city surroundings or average mountain heights. This typology is rather rare in high mountain areas as is not adapted to rough winter climates. In such environments, the iwan is usually associated to other architectural shapes: the house with three arches, for example.

### Use/associated activity

This dwelling is used as households today. But in the past, it was a general-purpose house, used as a home, but also as a place for produce and farm equipment storage. The iwan played the role of circulation space, as well as for work or animal shelter.

### Dating

It seems that this house has existed in Lebanon since the XIth century. In any event, it was built till the end of the XIXth century.

### Altitude

From sea level up to 1.000 m.

### Orientation

When possible, the iwan is directed north, to prevent the direct exposure of the house to the sun and heat. If not, in the mountain, the house looks at usually the valley.

### Ground surface covered

In mountain boroughs and villages, average areas account for 1/5 maximum of the land space. Elsewhere, this ratio can reach 4/5, thus 80% of the space.

### Surface area of housing

The minimum area of this dwelling is 50 m<sup>2</sup>

### Number of floors

Generally, this typology consists of only one floor. It can sometimes include an element on the roof to freshen hot summer evenings.

### Number of homes

One

### Number of families

One family.

### Average number of members per family

The family consists of 4 to 10 people.



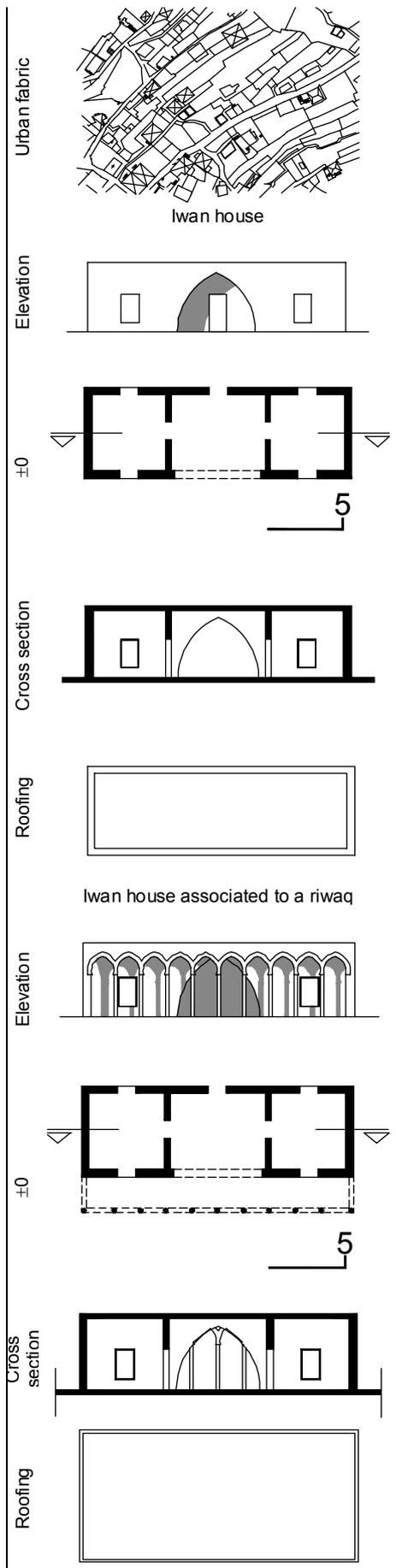
Iwan house



Iwan house associated to a riwaq

### Functional outline

The two side elements of this dwelling were used as bedrooms. In certain cases, they were also areas for work and storage. As for the iwan, it was made for circulation and ventilation, but was also used to store agricultural products and shelter for animals. The door of the side elements opens onto the iwan and not directly outside. Windows on the other sides open to air and light. A hard-packed earth area prolongs the house in front and in back: it has no kitchen, toilet, bathroom, nor a living space to rest. These activities take place outside, linked to farm life. Though a compact shape, the house with iwan belongs to the category of dwellings which are conceived to function with surrounding open areas, and are equipped and arranged for this purpose.



## **Walls**

The walls of the house with iwan are made with stone. Their thickness varies from 40 to 100 cm.

## **Framework**

It is made of stone walls.

## **Roofing**

Hard-packed earth, resting on an apparent flat floor supported by beams and joists

## **Rendering**

- the inside is generally rendered with lime
- the outside is bare stone, some embossed, or covered with wash.

## **Openings and projections in the facade**

The central element bears a large broken arch or full arch in direct contact with the outside. All the other openings are rectangular and symmetrical, no projecting shapes. Wooden shutters. The lintels are generally juxtaposed wooden elements.

## **Traditional systems of air-conditioning**

Ventilation is guaranteed through the iwan and openings, and the heating comes from braziers.

## **Drinking water supply systems**

Drinkable water is supplied by sources or public fountains.

## **Waste water drainage systems**

There is no collective drainage system. The house with iwan used a septic tank.



## CURRENT STATE OF VITALITY AND PRESERVATION

The houses with iwan are still inhabited today, though they have undergone successive transformations since the beginning of the XXth century. New generations prefer taking apartments in more modern buildings. These houses are relatively well preserved. Many have been restored to adapt to modern use, especially on an economic level.

## TRANSFORMATION PROCESS

*Effet / Cause*

### Typological transformations

#### — Volume

Many houses with iwan were covered with Marseilles tiled roofings at the beginning of the XIXth century. Almost all the iwans were closed and were transformed into dwelling elements. A symmetrical door and two rectangular windows replaced the arcade. Transformations were implemented by adding floors and volumes, to adapt the house to modern life (toilets and inside bathroom, for example). In both city downtowns and mountains, one often finds the house with iwan associated to a ground floor or to a house with three arches, or a higher floor.

#### — Façades separations

Besides the closing of the iwan, one notes very few transformations on façades. Cement rendering is more and more often used on external walls, as well as metal fittings.

#### — Structure

The hard-packed earth roofing is now is replaced by reinforced a concrete flooring resting on metal joists and beams.

#### — Space organization

Today, the house integrates a kitchen, toilets and a bathroom. The central element which was specifically adapted to agricultural work became a living area, often displaying a balcony or a veranda. The heating comes from cast iron fireplaces, and sometimes even from central heating. As for drainage, public networks are only found in large cities and several large towns.

### Change in use

Today, the house with iwan is especially designed as a household. When in mountain town or city souks, it is sometimes assigned new activities: economic or public services (shops, restaurants, offices...).

### Change in use of construction materials and techniques

#### — In use, living

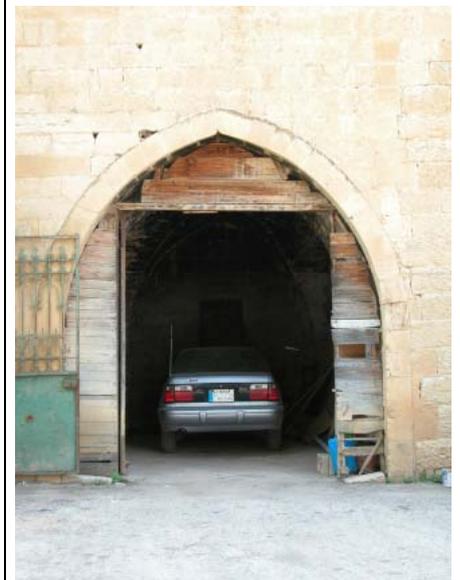
#### — Little used, in decline

#### — No longer used

#### — Recent incorporations



Two floor house with iwan to, with an addition of three arches.



Hasbaya

## CAPACITY FOR REHABILITATION

### Aspects of the typology

Score from 0 (very poor) to 10 (excellent)

- . Capacity for sale or rental on the property market | 5
- . Capacity for adaptation to present-day family and social requirements | 2
- . Capacity for adaptation to present-day comfort requirements | 2

Score from 0 (insignificant) to 10 (major)

- . Technical difficulty of rehabilitation | 2
- . Administrative difficulty of rehabilitation | 4
- . Financial difficulty (high-cost)of rehabilitation | 5

### Obstacles preventing rehabilitation/causing the user to decide not to rehabilitate

Score from 0 (does not represent an obstacle) to 10 (represents a major obstacle)

- . Administrative difficulties | 4
- . Major technical difficulties | 2
- . Irreversible deterioration of the structure | 9
- . Listed/protected building | 4
- . High cost of rehabilitation | 3
- . Absence of aid/subsidies | 8
- . Cost of the project and permits | 5
- . Status of building/lease | 8
- . Inflation of property prices | 2
- . Social decline (delinquency, ...) | 2
- . Poor environmental conditions (absence of minimum infrastructures, ...) | 8
- . Desire to change the building for a modern one | 8
- . Lack of sensitisation/appreciation on the part of the users | 8
- . Not considered necessary (by the user) | 7

### Comments

This kind of dwelling is not appreciated in Lebanon. Only older generations continue to appreciate living in these houses. Generally, their heirs or younger generations are eager to get rid of this real estate, as a considerate as old and out of fashion.

In the capital, the law which has frozen rents since the 1940s, has made this type of lodging unprofitable, leading owners to selling their property to land speculators who then construct modern buildings. This kind of house with iwan has almost completely vanished in Beirut.

In addition, there is no real preservation policy and forests by the state to protect this kind of dwelling.



Iwan house in Tyr

## LEXICON

**Iwan** large arch which opens on the outside of a dwelling element or a hall. This limited definition broadened to include the hall which carries this arch.

Références : Académie Libanaise des Beaux Arts (ALBA) : Plans, Cross sections, Façades

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