

Typology:

Riwaq house

Country:

Lebanon

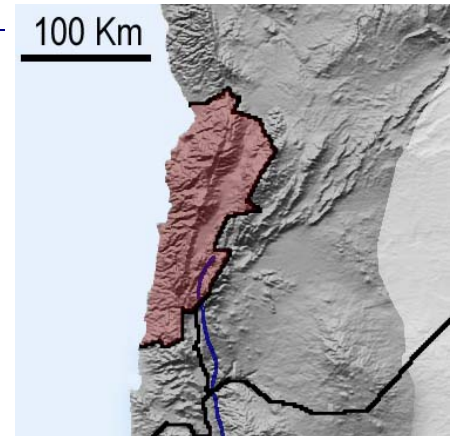


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SYNTHESIS

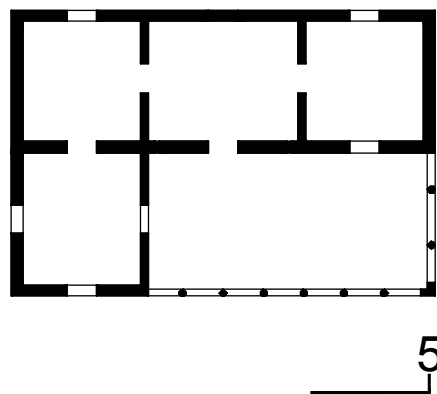
The riwaq is a decorated covered area in a gallery, with broken arches opening onto the outside. The house with riwaq is made up of two, three or four aligned or staggered elements, flanked with a riwaq on a part or all its façade. The riwaq is either built in front of the dwelling or in the very volume. All the elements in house open onto the riwaq. They have many other additional openings: ox eye windows. The riwaq is made with stone though some rare cases were reported using wood. The house with riwaq is quite widespread in Lebanon, undoubtedly because it is particularly well adapted to Middle Eastern climates. It not only provides shade to protect from direct sunlight during the summer, but also protects the house from pouring rains, preserving the wood finishings. It is also a privileged place for resting and relaxing after work. This house is also appreciated on an aesthetic level. This typology usually has two storeys.



ANALYTICAL GROUP OF THE TYPOLOGY

Urban/rural (Environment)	Single element (Implantation)	Fixed (Character)	Permanent (Origin)	Continuous (Use)	Rooted (Cultural)	Average and high (Economic level)	Compact (Morphology)
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FORMS OF THE TYPOLOGY



Typical riwaq plan

INVENTORY OF THE COUNTRY'S TYPOLOGIES

Troglodyte house	Shepard shelter	Nomadic habitat	Basic house
Iwan house	Riwaq house	Three-arch house	Court house

FORMS OF THE TYPOLOGY

Implantation

This house is generally established in individual units in the heart of mountain towns and villages, or in the surroundings of a farm. These houses are seldom grouped.

Use/associated activity

This type of house is main use for dwelling. In rural environment, from activities are sometimes associated.

Dating

The exact origins of this typology are unknown, and it was built till the end of the 19th century. The broken are each goes back to the Arab period. The riwaq surrounded the interior courts of palaces and religious monuments of that period.

Altitude

From sea level to 1.700 m.

Orientation

The riwaq is oriented North, towards the better weather conditions. In mountain environment, it usually opens onto the valley.

Ground surface covered

The dwelling generally covers 1/5 of the land plot. In dense towns, this typology can cover 100% of the plot.

Surface area of housing

Number of floors

One or two levels

Number of homes

2 households

Number of families

Two families

Average number of members per family

4 to 10 people

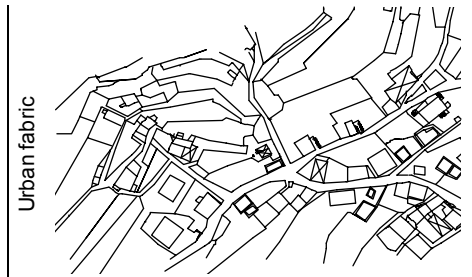


Riwaq house in Baakline

Functional outline

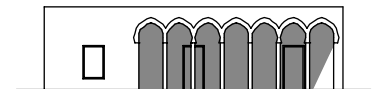
In urban environment, this house is the heart of household life. In this prototype, the main element, that is to say the living room, is located in the back of the riwaq. Its position is central. The side elements fill other domestic roles: sleeping areas, cooking area, etc

In rural environment, the first level of this typology is used as shelter for animals or for tool or material storage.

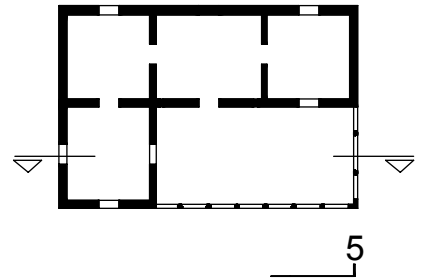


Urban fabric

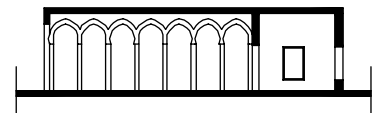
Elevation



±0



Cross section



Roofing



Walls

The walls of this typology are carried out with bare masonry and often embossed stone. They are from 40 to 50 cm thick.

Framework

It is made of load-bearing stone walls and pillars, and stone arcades for the riwaq. The floor is made with wooden lathes supported by beams and joists.

Roofing

The roofing is made up of a layer of earth resting wooden laths supported by joists and beams.

Rendering

The inside walls are rendered with lime; the exterior walls are seldom whitewashed. The ground is paved, with non smoothed stones, using rendering.

Openings and projections in the facade

The openings can be either rectangular, or are surmounted by a segmented arch. This typology has no protruding façade elements.

Traditional systems of air-conditioning

The house is ventilated by means of the riwaq and its many other openings.

Drinking water supply systems

No water distribution systems. Drinking water is carried from sources and public fountains by means of earthenware jars and jugs.

Waste water drainage systems

In cities, waste water has been evacuated through the public sewers since the end of the 19th century. Previously, septic tanks were used. In rural environment, waste water was rejected in nature.



Riwaq house in Deir el Kamar



Riwaq house in Tyr



Riwaq house in Zahleh

CURRENT STATE OF VITALITY AND PRESERVATION

In urban environment, most of these dwellings are inhabited and regularly maintained. For the past few years, they have drawn attention and have become very popular in the general public. In rural environment, they on the contrary suffer from lack of interest and poor maintenance.

TRANSFORMATION PROCESS

Effect / Cause

Typological transformations

- **Volume:**
Transformations are generally rare. At the beginning of the 20th century, many houses with riwaq were given an additional floor with arcades and red tiled roofs. During the 20th century, they underwent other deteriorations, such as additional concrete volumes or verandas on the back.
- **Façades separations:**
the façades have generally not been altered
- **Structure:**
Concrete pillars and walls have been added during restoration or enlarging campaigns
- **Layout organization:**
Nothing special has been reported. The central room behind the riwaq is still the living room. Only bathrooms or a kitchen have been added in which used to be only bedrooms.

Change in use

The use of this house has remained unchanged. In cities, this house is only used for dwelling. In mountain areas, some rural activities still take place on the ground floor.

Change in use of construction materials and techniques

- **In use, living**
- **Little used, in decline :**
Stone wood
- **No longer used :**
Lime, traditional wash, Marseilles tile, hard-packed earth.
- **Recent incorporations :**
Concrete, aluminium



Exterior concrete column add-ons to a riwaq, in Zahleh



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 4

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 5
- . 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 typology suffers from a lack of interest on behalf of public authorities. It is often restored on private funds and efforts. The works on entrusted to architects without any specific expert size or regulation control.



LEXICON

Riwaq : gallery with ogee arches

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

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