

Typology: **Borj dwelling in the suburbs of Sfax**

Country: **Tunisia**



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**SYNTHESIS**

The *borj*<sup>1</sup> (literally, fortress) is a seasonal dwelling in the suburbs of Sfax with an elementary morphology. When the summer arrives, the inhabitants of Sfax leave their homes in the medina and go to spend the next 3 months or so in the *jneins*<sup>2</sup>, to make the most of the coolness of the countryside and cultivate the fruit trees that grow there. There are orchards covering between 5,000 and 20,000 m<sup>2</sup> and containing a carefully chosen selection of fruit trees (almond, fig, peach, apricot, pomegranate, apple trees, etc.) cultivated with irrigation. In the middle stands the *borj*, a dwelling built with batter walls and a first floor, no inner courtyard and usually with a square plan. There are few openings: those on the first floor are practically loopholes. On the ground floor, a single doorway facing south-east leads into the central room, covered with cross vaulting and extended with a raised living and reception space (*jelsa*<sup>3</sup>). On the first floor there are generally two bedrooms. There are also outbuildings and annexes. The oldest *borjs* date from the 17<sup>th</sup> century. Since the 19<sup>th</sup> century, successive transformations have extended the dwelling to make it a permanent home.



**ANALYTICAL GROUP OF THE TYPOLOGY**

Rural (Environment)	Scattered (Implantation)	Fixed (Character)	Definitive (Origin)	Seasonal (Use)	«Seated» (Cultural)	High / medium (Economic level)	Compact (Morphology)
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**FORMS OF THE TYPOLOGY**



**INVENTORY OF THE COUNTRY'S TYPOLOGIES**

House in the medina of Tunis	House in Testour	Sulaiman house
House in the medina of Sfax	<b>Borj dwelling in the suburbs of Sfax</b>	House in Tozeur (Djérid)
House in Matmata	House in Dairet-Chenini	House in Djerba

## FORMS OF THE TYPOLOGY

### Implantation

Isolated dwelling set in the middle of an orchard.

### Use/associated activity

Seasonal dwelling linked to farming.

### Dating

The oldest *borjs* date from the 17<sup>th</sup> century. As of the 19<sup>th</sup> century, this type of dwelling was subject to extension work.

### Altitude

### Orientation

Entrance doorway facing south-east.

### Ground surface covered

### Surface area of housing

### Number of floors

GF

### Number of homes

One.

### Number of families

One.

### Average number of members per family

6 to 8.



### Functional outline

Urban fabric

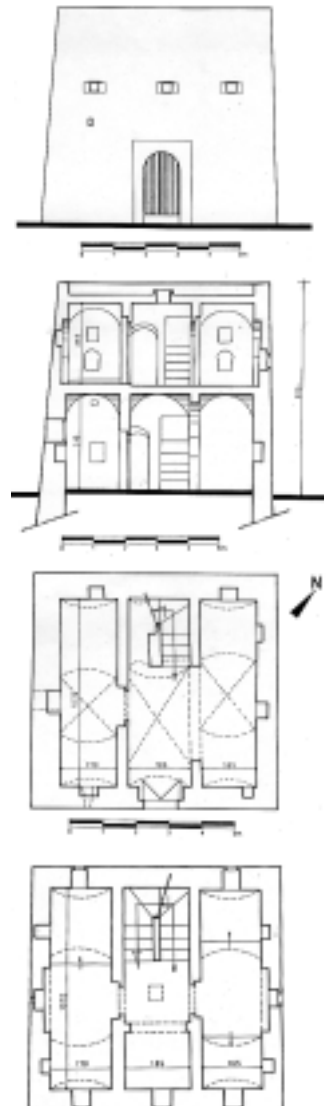
Elevation

Section

±0

+1

Roof



Borj dwelling in the suburbs of Sfax

## **Walls**

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Bearing walls of stone bonded with clay; every 50-70 cm, two courses of stone bonded with plaster.

## **Framework**

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Barrel or cross vaults. Sometimes timber joists.

## **Roof**

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Sloping terrace roof.

## **Rendering**

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Aerated lime mortar. The thick first coat is rammed and followed by a finer, smooth layer.

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

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The entrance door on the ground floor. On the first floor, narrow openings resembling loopholes. Sometimes, above the entrance doorway, a closed loggia. Sometimes a bartizan in the south-facing facade.

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

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The thickness of the walls and the vaulted roof finishing in a terrace keep the air inside the house cool.

## **Drinking water supply systems**

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A cistern is dug to collect the rainwater from the terrace roofs and there is an impluvium adjoining the *borj*.

## **Waste water drainage systems**

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A covered cesspit which is emptied regularly. The water used for washing laundry is kept to water the fruit trees around the dwelling (especially the pomegranate trees).

## CURRENT STATE OF VITALITY AND PRESERVATION

Today, the *borjs* are abandoned. They have mostly been destroyed and replaced by detached housing. Some have survived, but are in an advanced state of dilapidation, while some few have been preserved.

## TRANSFORMATION PROCESS

### Effect / Cause

Since it attained independence, Tunisia has undergone a socio-economic and cultural evolution, intensified in recent decades. Economic development has led to an improvement of living conditions and a major population increase. Social evolution has been marked by the destructuring of forms of community life as a result of the individualisation of economic production. This process has basically led to a change from the traditional patrilocal dwelling to the modern individual dwelling. Traditional architecture, characterised by the fixity of its forms, no longer offers satisfactory responses to new emerging housing needs. This has prompted designers to an ongoing search for a new, more adapted form of architecture.

At the start of the 19<sup>th</sup> century, Sfax started to extend beyond the town walls, due mainly to the increased wealth of the inhabitants as a result of business and to population growth. The original volume of the *borj* was then extended to include an open courtyard, a stable, latrines, a kitchen, etc., and one or two bedrooms opening onto the courtyard. The *borj* then became a permanent dwelling.

### Typological transformations

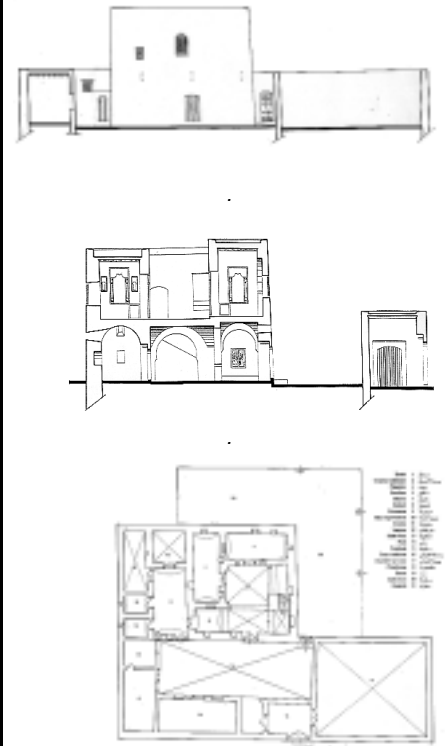
- The suburbs have traditionally been a major reserve of land for the town of Sfax; with their scattered dwellings and great orchards, they are now the site of urban explosion. The orchards are divided up, the *borjs* often demolished and the land divided into plots for the construction of detached housing, outward-looking dwellings which are surrounded by small gardens (the usual is 400 m<sup>2</sup> for the whole parcel).

### Change in use

- The *borjs* are increasingly abandoned, even demolished, and replaced by detached housing.

### Change in use of construction materials and techniques

- **In use, living**
  - Stone and lime (renderings, sloping roofs, limewashing).
- **Little used, in decline**
  - Lime mortar.
- **No longer used**
  - Clay, plaster, stone walls bonded with clay and ties, or bonded with plaster.
- **Recent incorporations**
  - Cement, reinforced concrete, steel and industrially produced baked clay products. *The reasons for this are economic (availability on the market) and psychological or even cultural (they are seen as being modern).*



## CAPACITY FOR REHABILITATION

### Aspects of the typology

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

- Capacity for sale or rental on the property market | 8
- Capacity for adaptation to present-day family and social requirements | 5
- Capacity for adaptation to present-day comfort requirements | 5

Score from 0 (insignificant) to 10 (major)

- Technical difficulty of rehabilitation | 5
- Technical difficulty of rehabilitation | 0
- Financial difficulty (very high cost) of rehabilitation | 7

### 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 | 0
- Major technical difficulties | 5
- Irreversible deterioration of the structure | 8
- Listed/protected building | 0
- High cost of rehabilitation | 7
- Absence of aid/subsidies | 7
- Cost of the project and permits | 3
- Status of building/lease | 7
- Inflation of property prices | 6
- Social decline (delinquency, ...) | 1
- Poor environmental conditions (absence of minimum infrastructures, ...)| 2
- Desire to change the building for a modern one | 9
- Lack of sensitisation/appreciation on the part of the users | 8
- Not considered necessary (by the user) | 8

### Commentaries

The *borjs* have seen their surrounding orchards shrink away. At best, they have been abandoned if not demolished and replaced by detached housing. Some inhabitants have managed to rehabilitate and adapt theirs to the demands of modern comfort. For its part, the State (Ministry of Culture) undertakes to classify or protect some examples.

## LEXICON

1. *Borj*: literally, fortress, dwelling without a courtyard, occupied during the summer months.
2. *Jnein*: an orchard of several thousand square metres with a seasonal dwelling.
3. *Jelsa*: raised living and reception space.