University of Tishk
College of Engineering
Department of Interior Design

Islamic Interior and Exterior
Fifth Lecture

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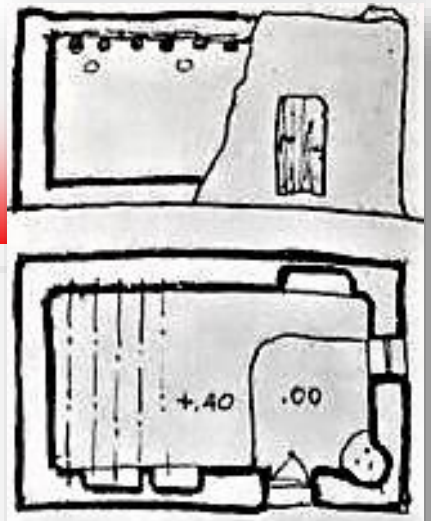
The Planning Elements

1 – Closed Cell

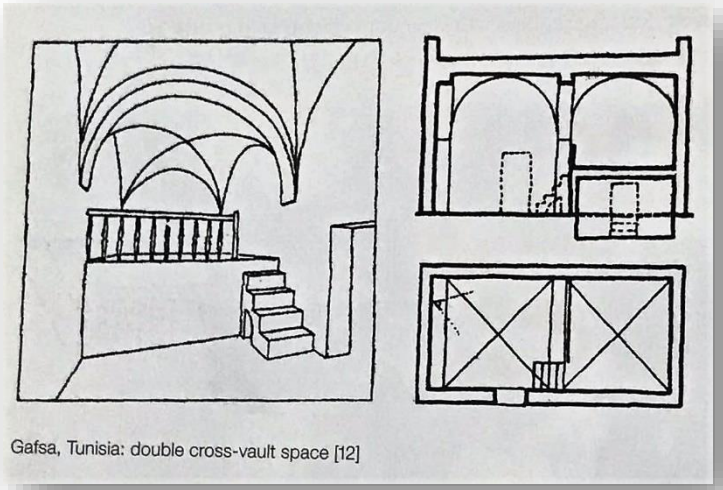
The simplest type of flat roofed house consists of a single square or rectangular space with low door , ventilation openings below the roof ,and one or two small windows. It constitutes a closed cell for living.

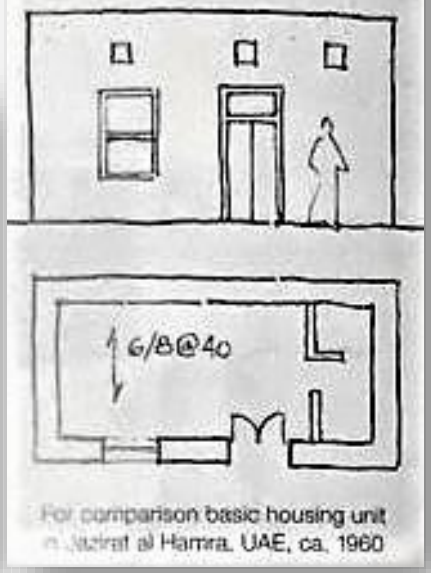
[12sq.m, hardly enough for two occupants, 3.5*7m=25sq.m is more useful].



Single-cell house, Baalbek, Lebanon

If the cell is roofed by a cross vault, as in Palestine or parts of North Africa, it is of square plan and usually extended by raised or depressed spaces.


Gafsa, Tunisia: double cross-vault space [12]

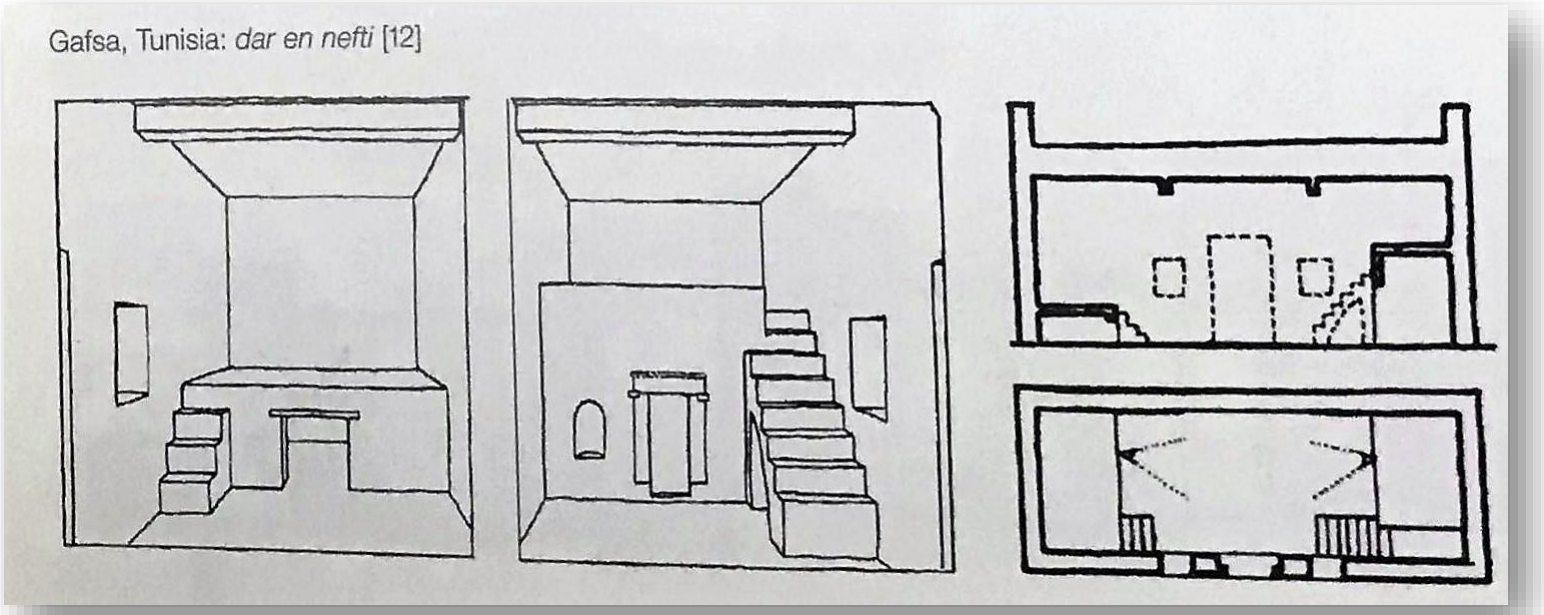


For comparison basic housing unit ... Hamra, UAE, ca. 1960

The Planning Elements

2 – Transverse Space

They are the logical way of building around a yard and are suitable for the span limitations of flat earth roof. In addition they lack undue dynamism and give a sense of arrival. The end of such a space are often raised or contain a mezzanine, creating storage space below.



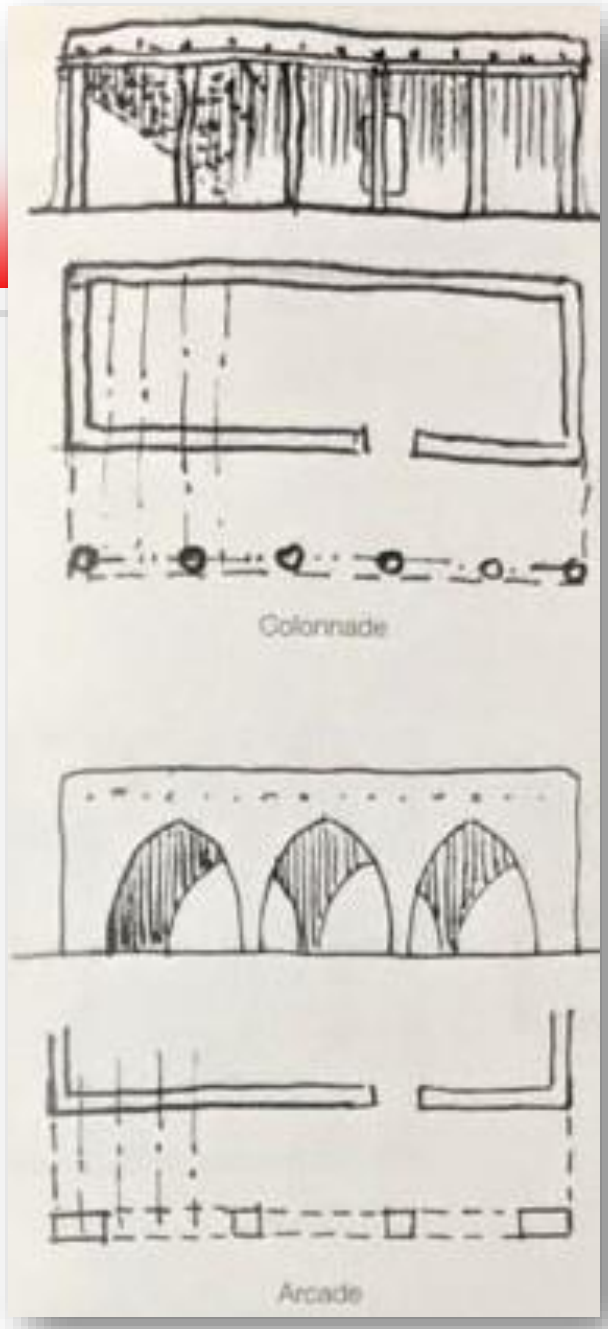
The Planning Elements

3 – Colonnade and Arcade

If the roof of a building is carried outward, resting line of support, we gain an open covered space which serves as transition between outside and inside.

It adds interest to a building exterior as witnessed by classical temple design.

When columns and beams serve as support we call it a colonnade, when arches are used it becomes an arcade.



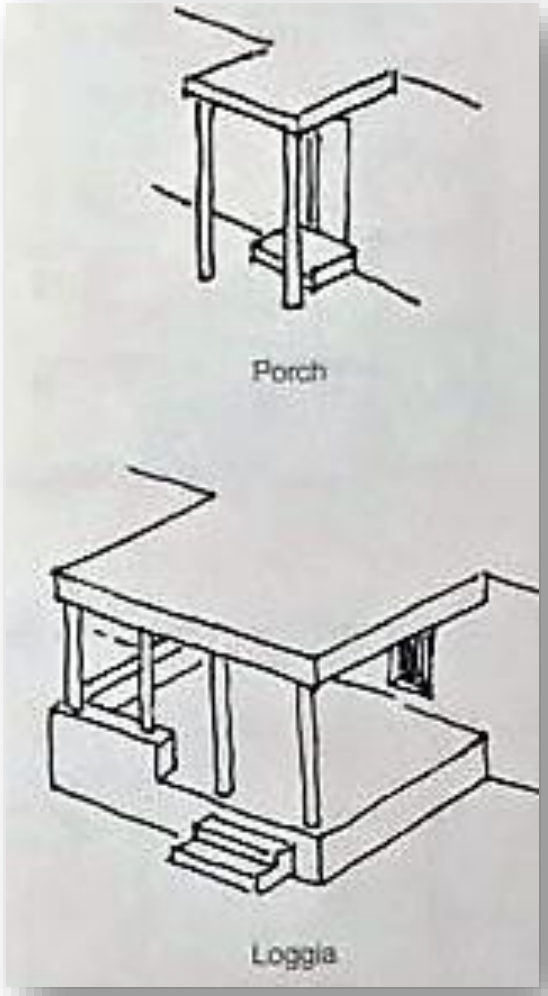
The Planning Elements

5 – Porch

If the roof extension is limited to the entrance area sheltering the visitor until he is admitted into the house, it is called a porch.

6 – Veranda and Loggia

If a covered outdoor space is designed as an extension of indoor space and raised above the open ground, it is called veranda or loggia.



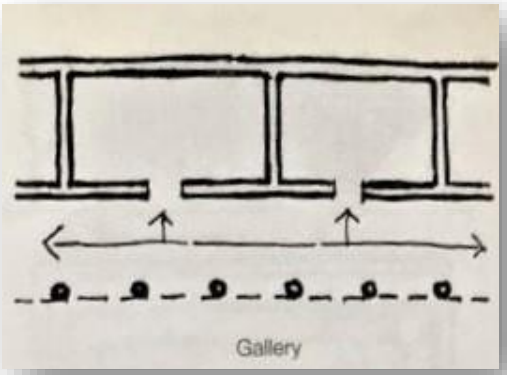
The Planning Elements

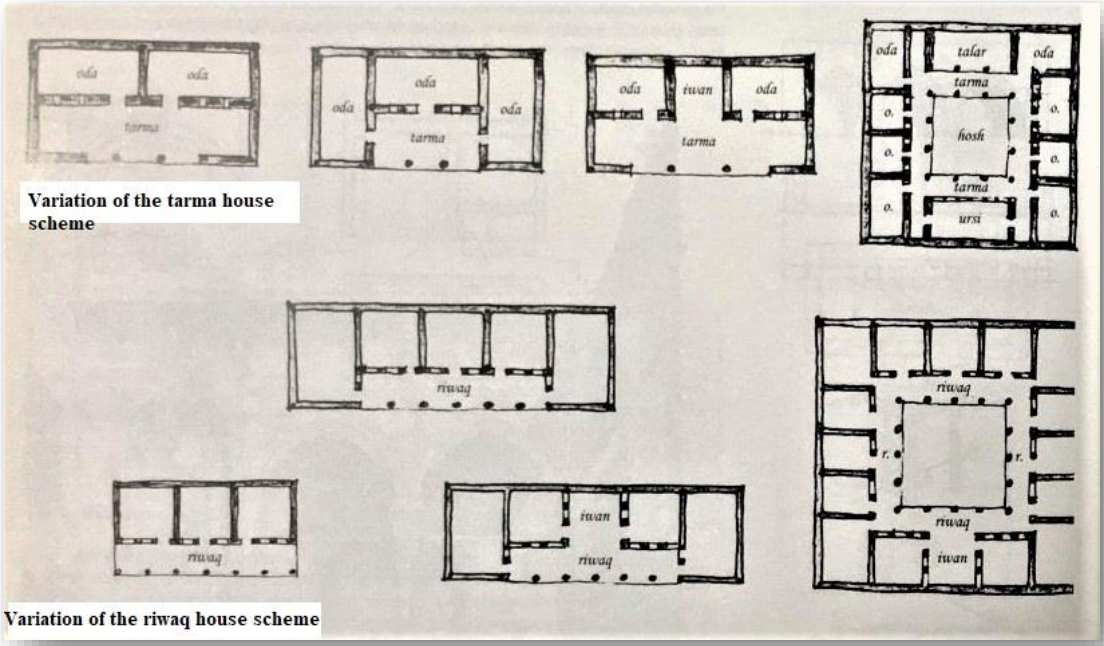
7 – Gallery

If the roof projection is of limited depth and carried along a series of rooms, it becomes a circulation space connecting these rooms, and will be called a gallery.

Gallery is come in many variations, usually attached the courtyard.

In Syria they are called riwaq, In Iraq tarma, in Egypt they are Seldom found.



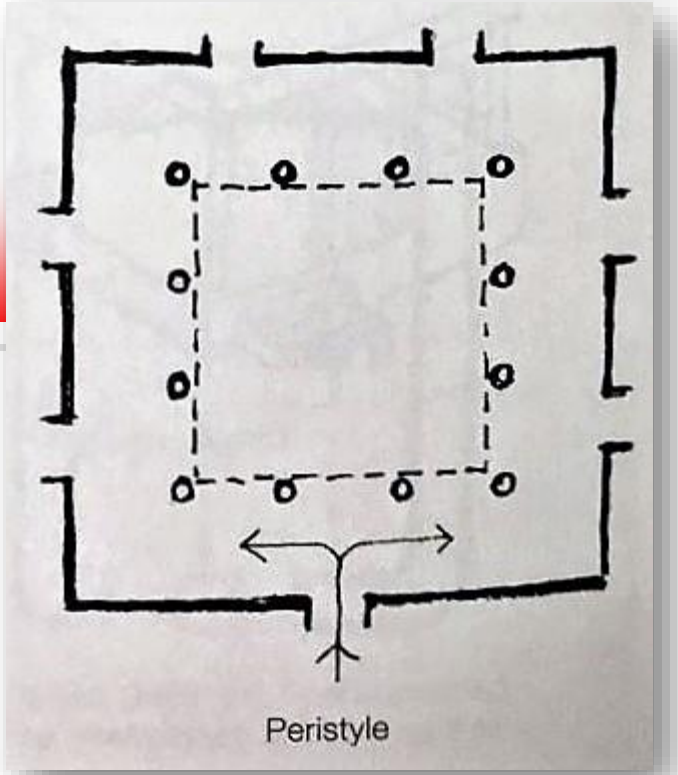


The Planning Elements

8 – Peristyle

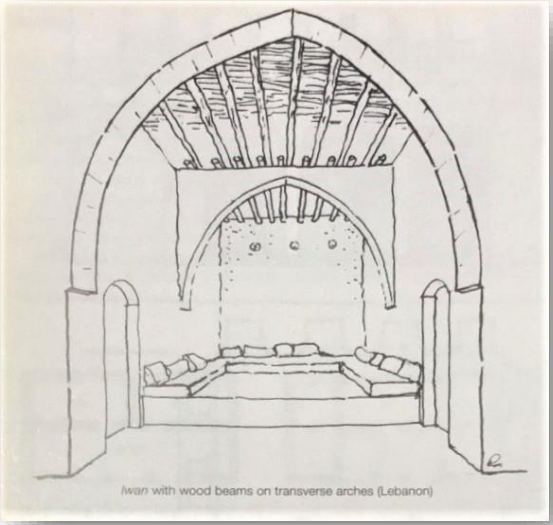
If a **gallery** is carried **around** a **courtyard** we used the term peristyle meaning **all around**.

The **classical atrium** had a peristyle.



9 – Iwan

It is a space with a **longitudinal** tendency, either **roofed** by **beams** resting on **transverse arches** or a **tunnel vaulted**. Arches or vault are **flush** with **wall**, or are **supported** on **brackets**.



The Planning Elements

9 – Iwan

The iwam makes only sense when protected from external interference. Therefore it is typically part of the courtyard scheme.

It combines very well

With a tarma or riwaq

and it may be repeated

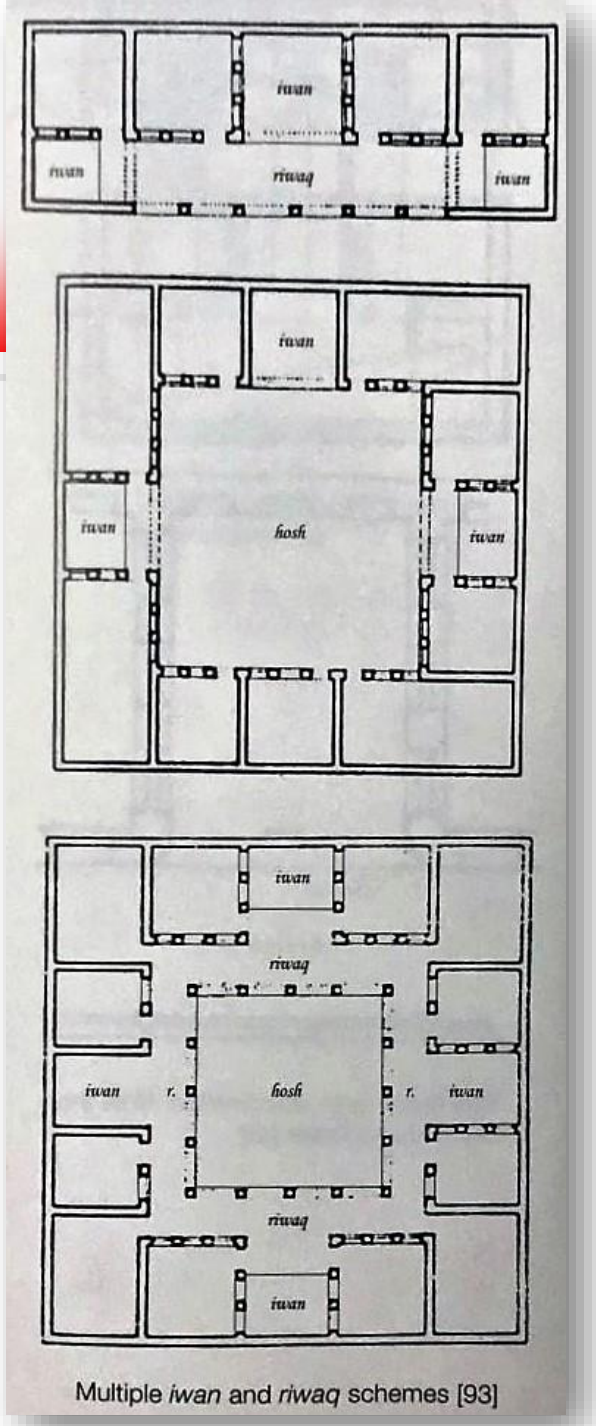
at the ends of the gallery,

or around a courtyard,

giving rise to two, three

or four iwan houses,

with or without riwaq.



Multiple *iwan* and *riwaq* schemes [93]

The Planning Elements

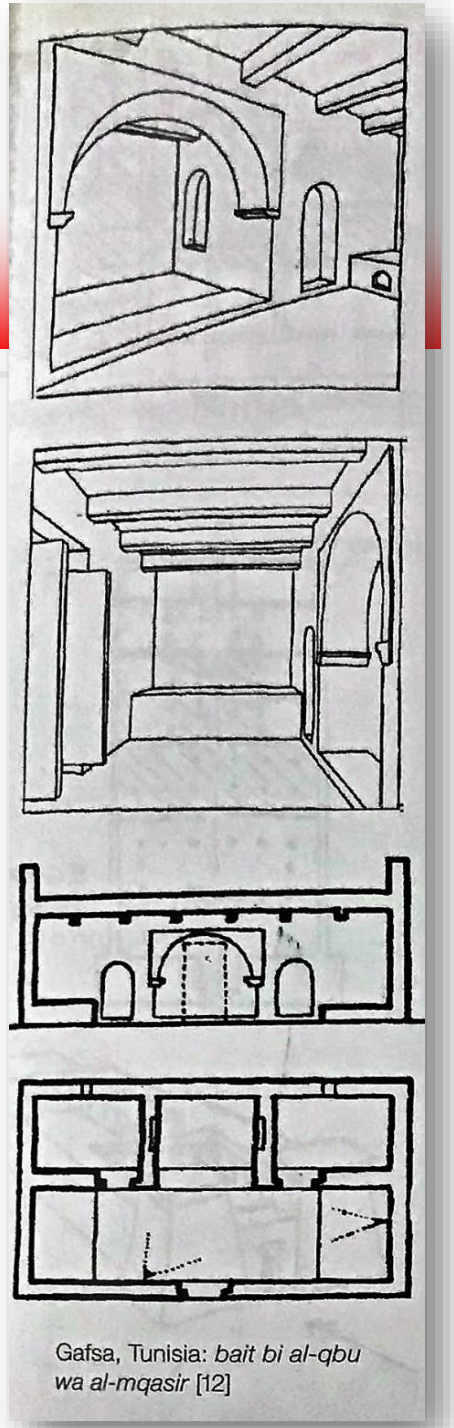
10 – Inverted T-arrangement

Using the previous elements we can combine the usual transverse room with a central iwan, producing an inverted T-plan.

This leaves two secondary rooms in the rear corners.

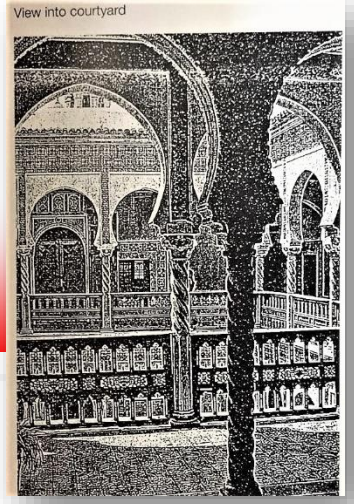
The whole constitutes a complete dwelling unit (bait).

In the Maghreb the ends of the transverse space usually have mastabas for sleeping.



Gafsa, Tunisia: *bait bi al-qbu wa al-mqasir* [12]

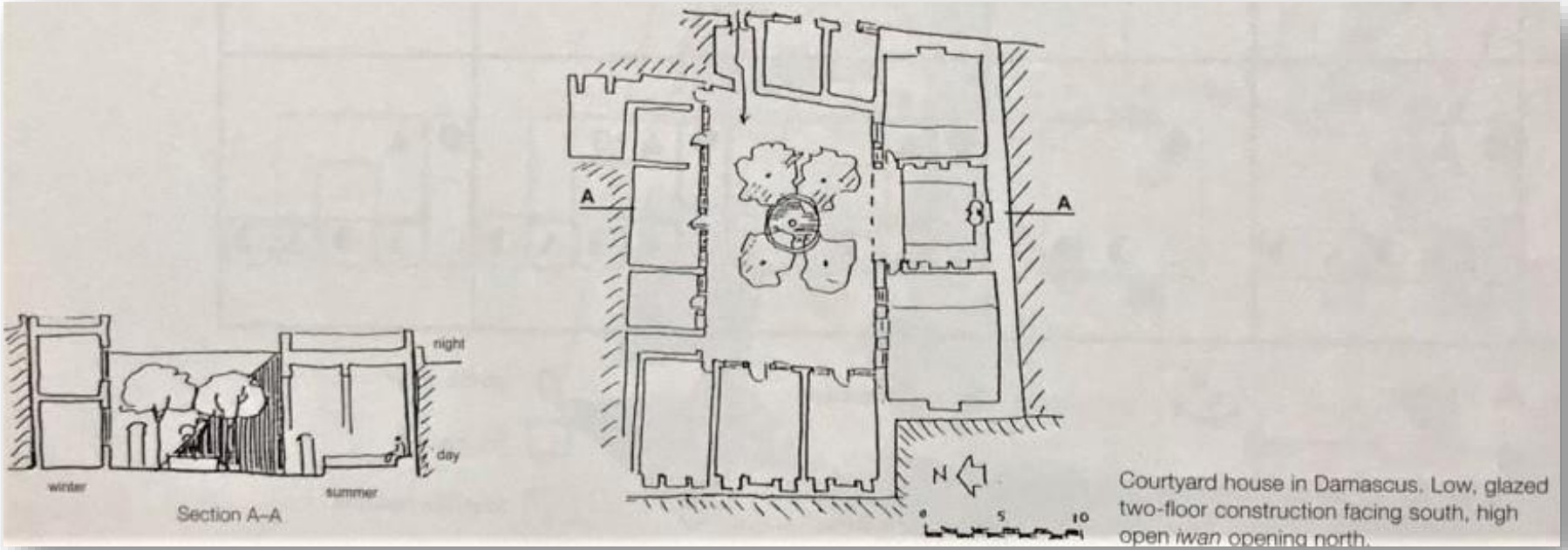
The Planning Elements



11 – Courtyard

Generally called hosh it is also known as center of the house. It serves as a common circulation space and neutral meeting ground.

Small courtyard today called patios and for lack of space might be little more than light wells, or a central space with a skylight.



Courtyard house in Damascus. Low, glazed two-floor construction facing south, high open *iwan* opening north.

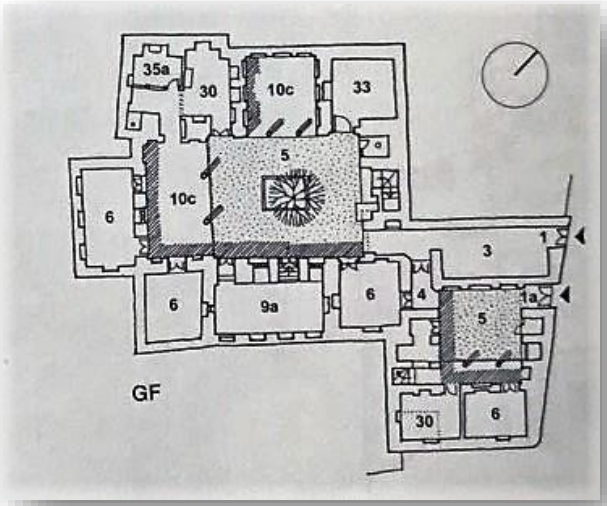
The Planning Elements

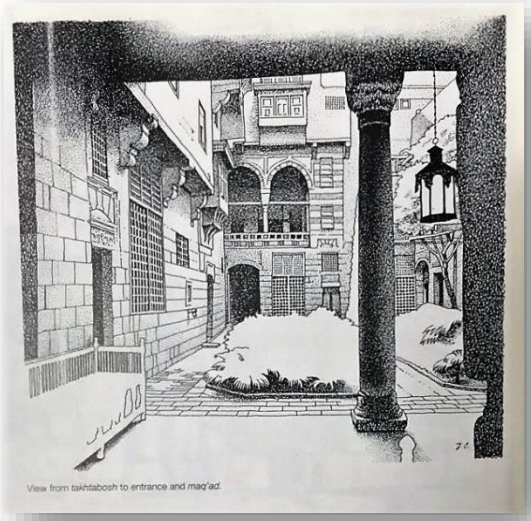
11 – Courtyard

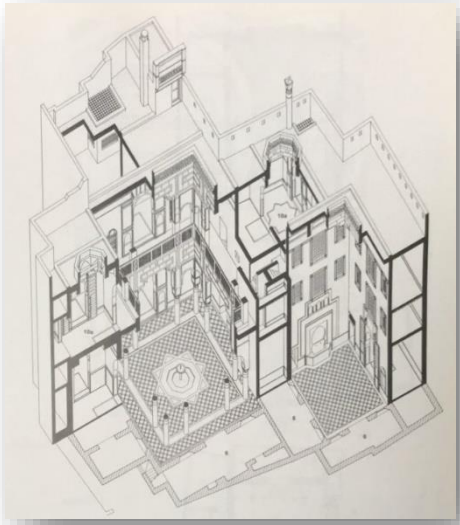
A proper courtyard will have fruit trees along the walls, shade trees in the middle and flower basins to enhance it as a family space.

Most desirable would be the inclusion of a fountain, or at least a well drawing rainwater collected in a cistern below the yard.

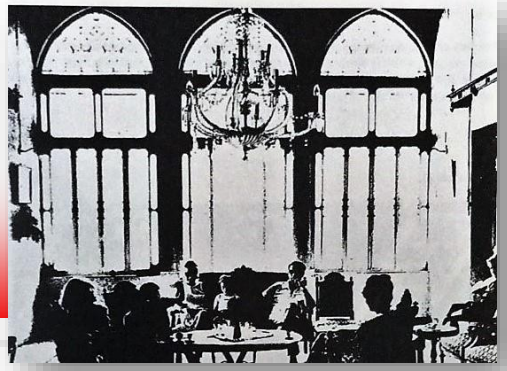
Sometimes the courtyard contains an independent covered outdoor sitting area, called takhtabosh.



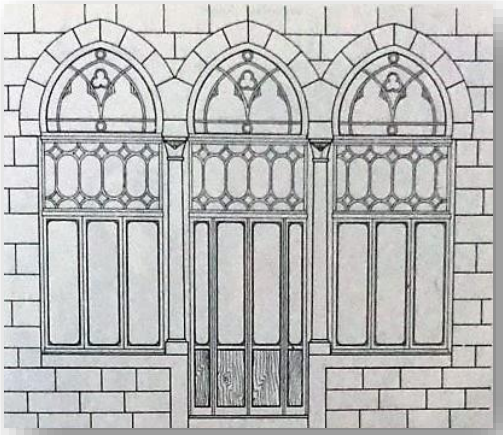




The Planning Elements



12 – Central hall

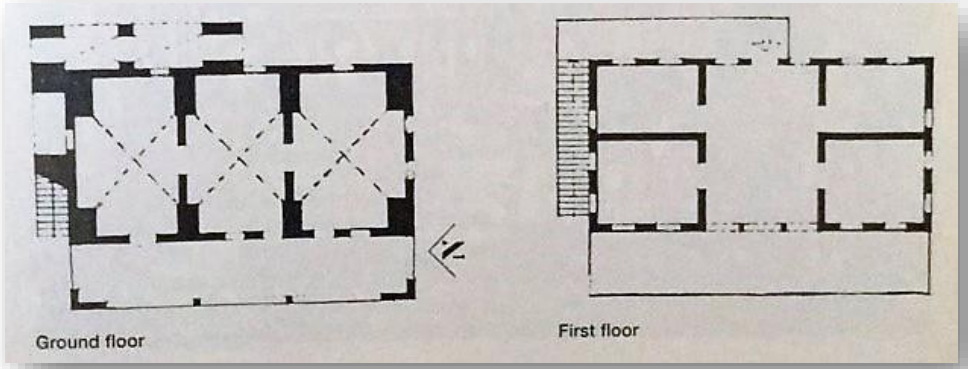


Under environmental conditions where the use of an open courtyard doesn't make sense, we find as central hall.

It is a large space with flat ceiling and clerestory lighting [a high section of wall that contains windows above eye level].

When on an upper level, one side will open to the exterior, usually through three arches.

Similar to the courtyard it serves as a general living area distribution to adjacent rooms.

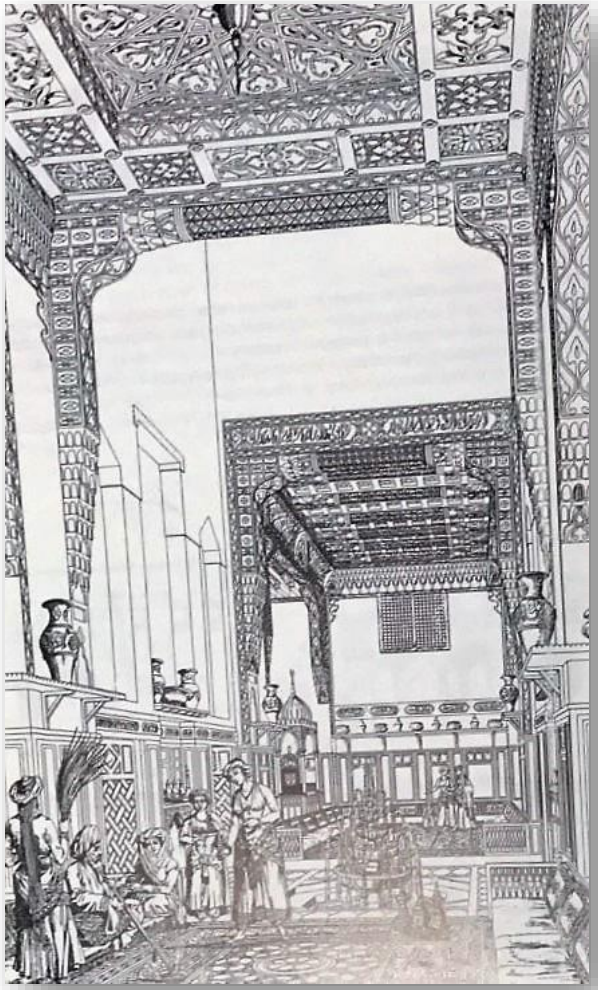


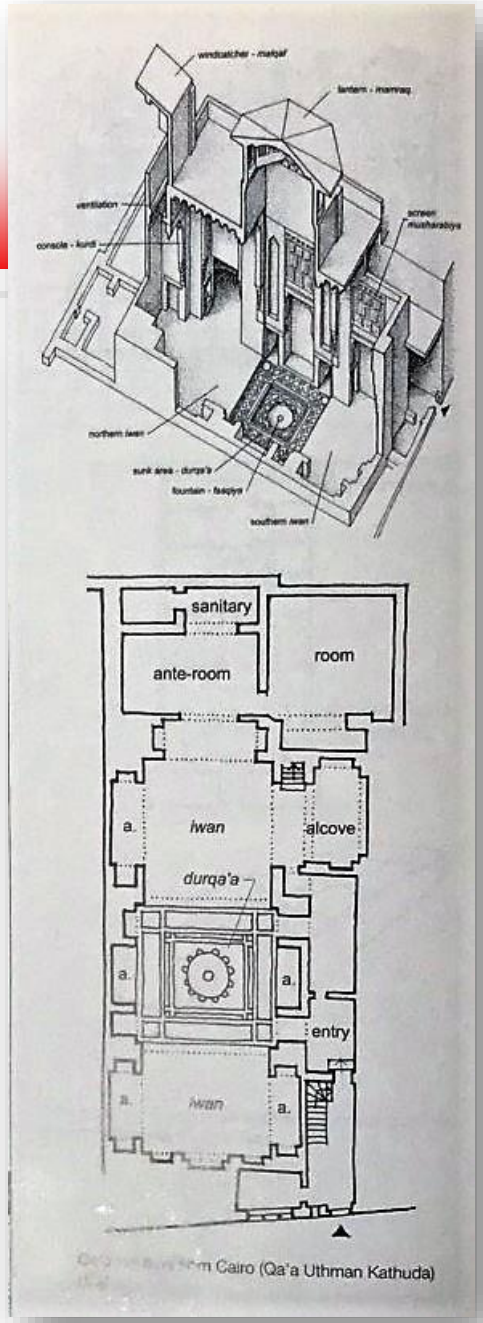
The Planning Elements

13 – Qaa

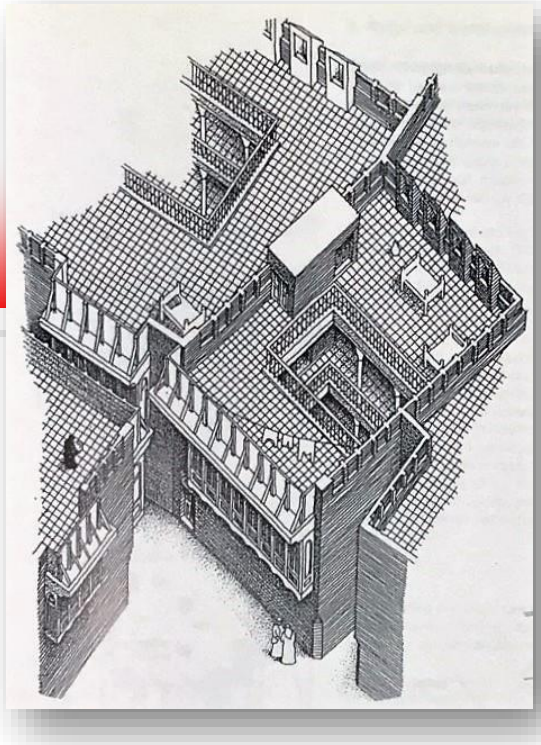
The qaa is a **roofed** over **courtyard- iwan combination**. It has a **depressed** central area , called durqaa, which is **surrounded by iwans**, **one** of them **supplied** with **fresh air** from a **malqaf**.

The whole is a most **prestigious composition** which serves as mandara (**reception hall**).





The Planning Elements

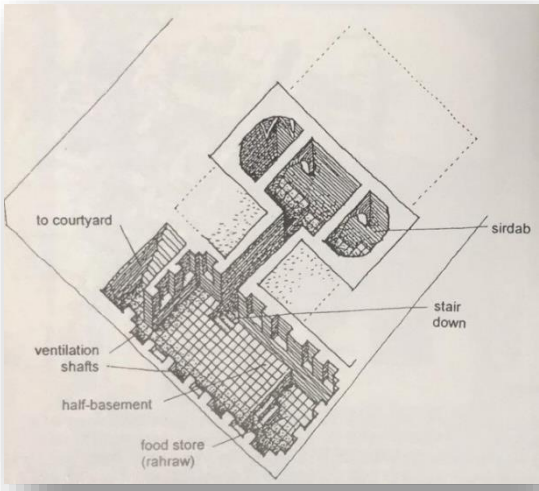


14 – Roof

They have to be accessible for maintenance, either by external ladders or steps, or by an internal staircase.

Its serves as sleeping platform during the hottest season.

Higher buildings avoided window opening towards neighboring roofs.

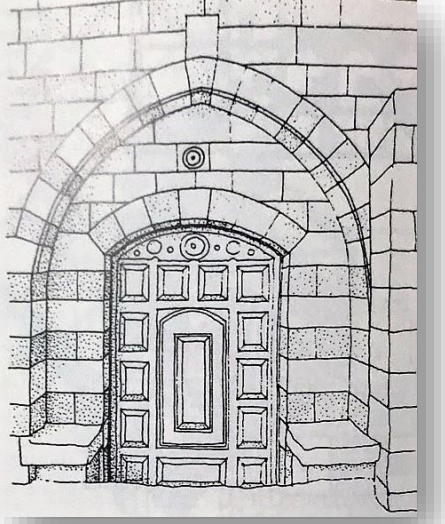


15 – Basement

The use of basement provides a space of even temperature, and hardily freezing in winter and never too hot in summer.

It also keeps the ground floor slab warm and dry.

The Traditional design strategies



1– Designing for privacy and segregation of genders

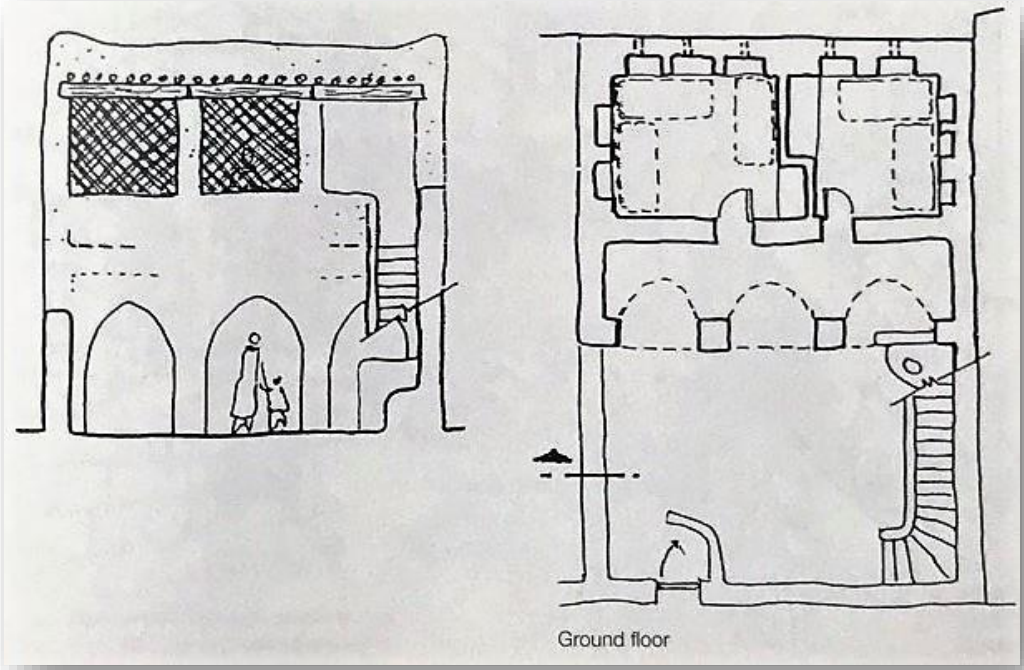
Closing the house to the outside is a necessary, not only for repelling noise, dust and smells from the street, but to emphasis on domestic privacy.

On the street level we find hardly any openings, unless the ground floor space has independent shops for rent.

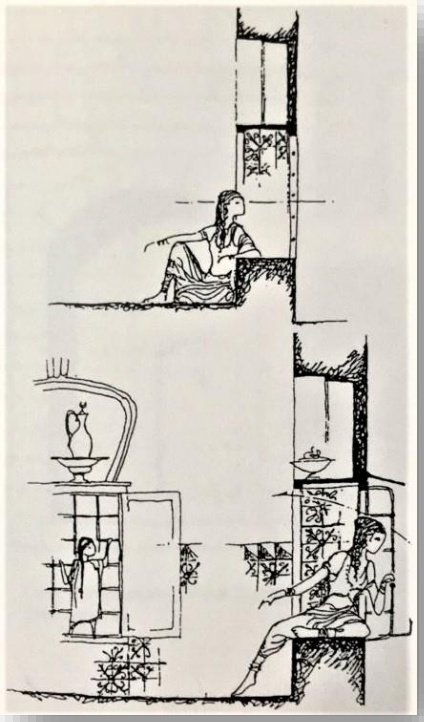
The entrance door separates public from semi-public space.

It opens into buffer space without direct view into the depth of the house.

In very basic houses entry may be directly in to the yard, but with a screen wall.



The Traditional design strategies

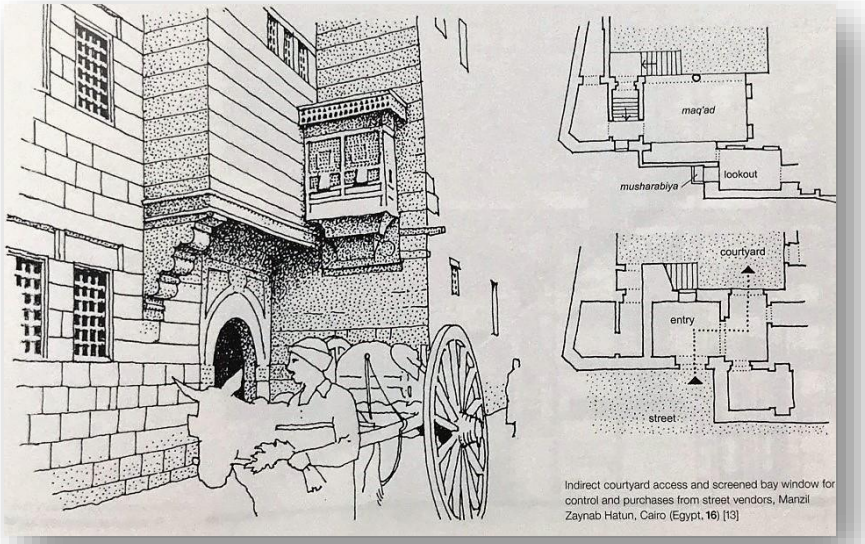


1– Designing for privacy and segregation of genders

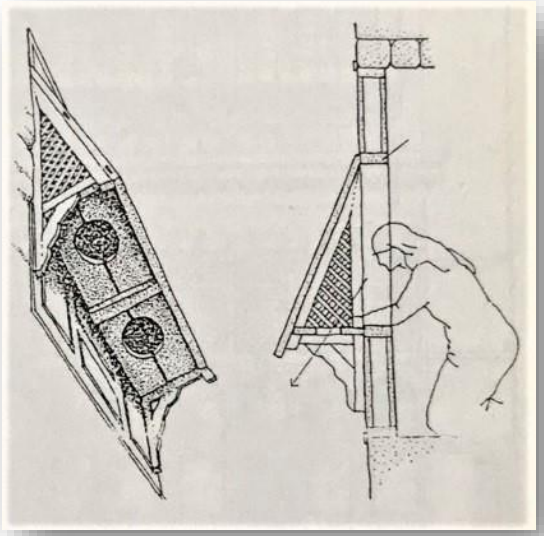
Many details of the house indicate that protection rather than seclusion of the women is intended.

As the veil itself hides the bearer but hardly restricts her vision.

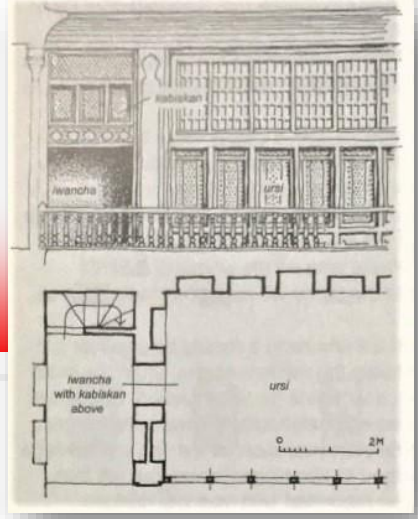
On the street side projecting windows afford on excellent view, with the possibility of lowering a basket for purchases from a street vendor.



Indirect courtyard access and screened bay window for control and purchases from street vendors, Manzil Zaynab Hatun, Cairo (Egypt, 16) [13]



The Traditional design strategies

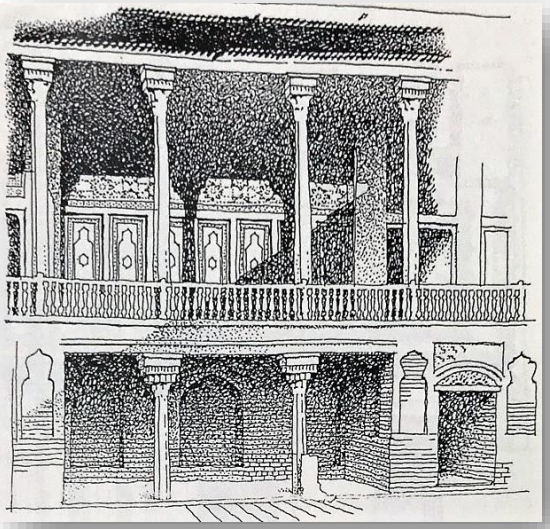


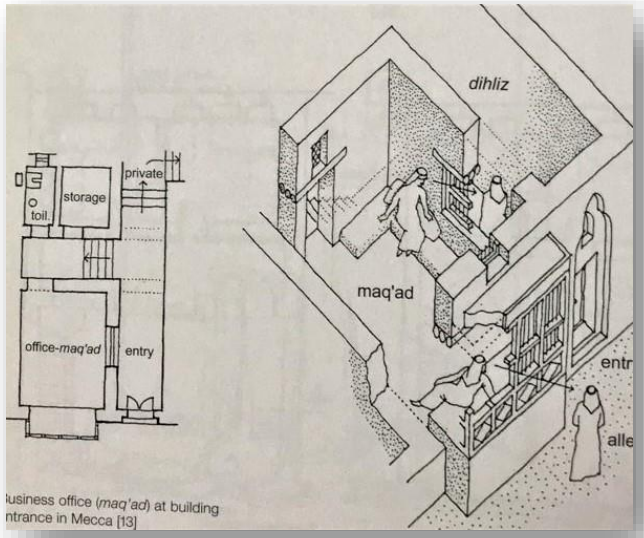
1– Designing for privacy and segregation of genders

All the women and children quarters, including family room and kitchen, are private.

The deeper into the house, or the higher up, the more private spaces become.

In large houses gender separation can be achieved by multiple courtyards or by different floor levels. In that case separate public and private stairs may be introduced.





The Traditional design strategies

2– Designing for variable space needs and expansion

With the exception of kitchen and wash room no space in traditional house has a clear function assigned to it.

The habit of sitting cross – legged on the floor or upon a mattress with cushions against the wall derives from nomadic practice.

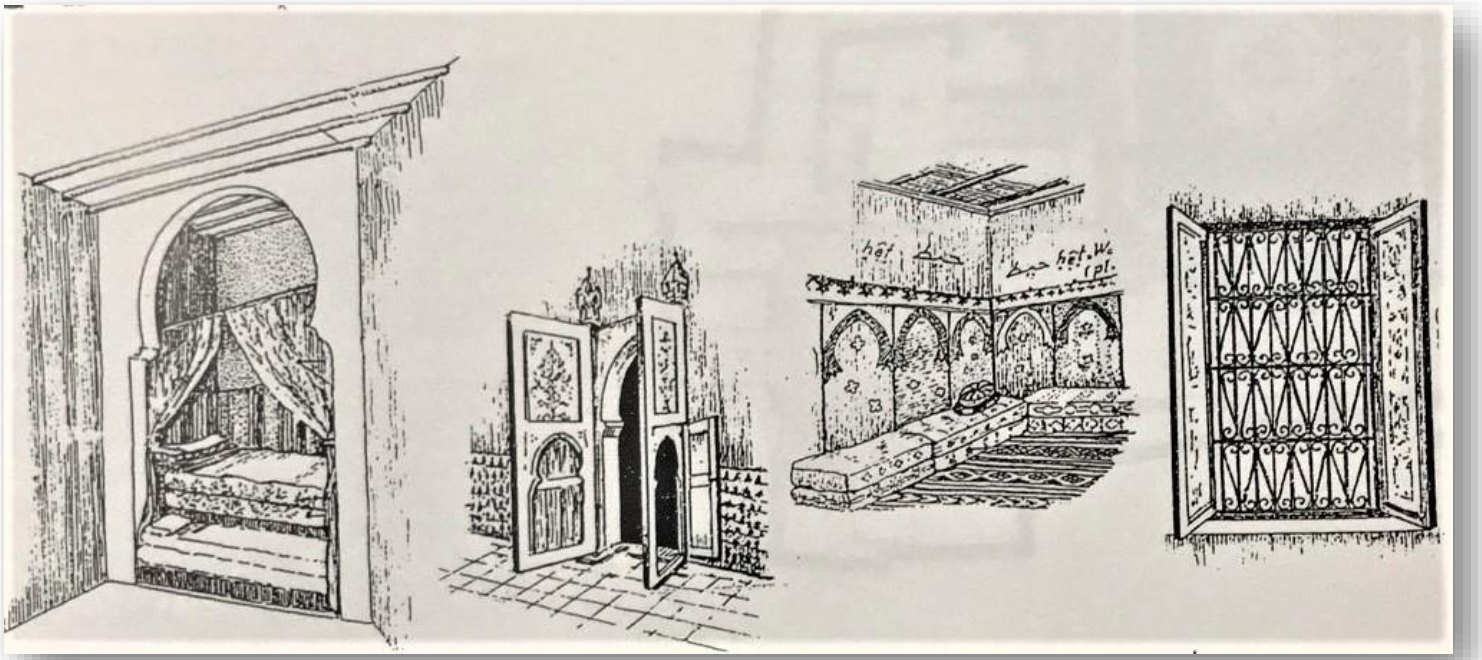
The bottom volume of the rooms is sometimes defined by a different color treatment of the wall up to 1.5m.

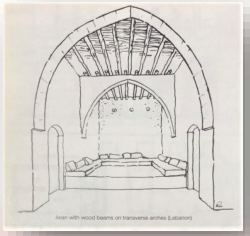
In no time a living arrangement can be changed into a bed room, simply by spreading mattresses to be a accommodated [like majlis or iwan can be used for sleeping].

The Traditional design strategies

2– Designing for variable space needs and expansion

Functional flexibility is helped by active room enclosures. The thick walls of mass construction allow in inclusion of niches, built in cupboards and shelves, even silos to store foodstuff. Partitions often serve the rooms on both sides.





The Traditional design strategies

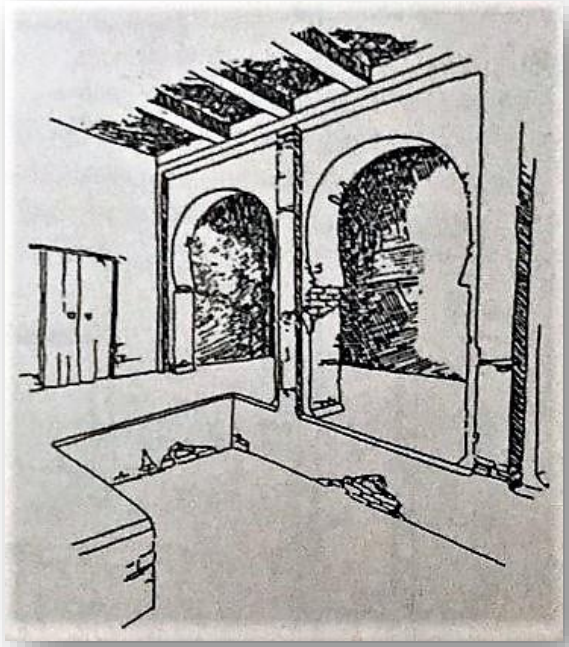
2– Designing for variable space needs and expansion

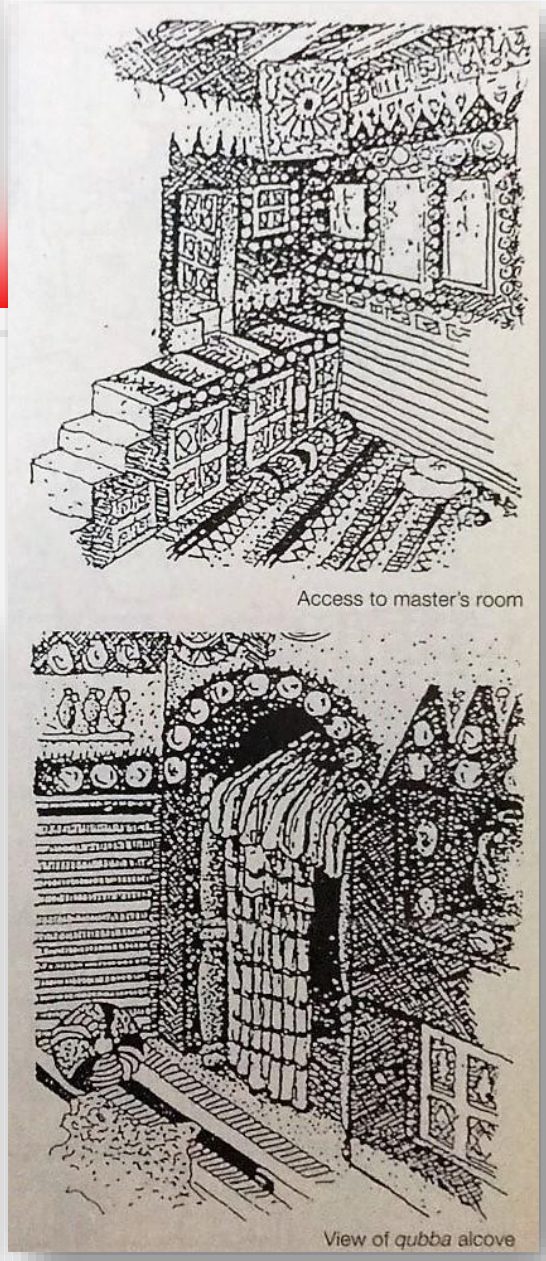
Floor level changes separate clean from soiled areas.

We find depressed floors where shoes and utensils are deposited.

Raised platforms [mastaba] define clean sitting areas, usually arranged in communicative U- shape.

Sometime we find a hierarchical sequence of seating levels, reflecting the relative importance of male residents and visitors.





3– Designing for a severe climate.