

europa

TRADITION



MODERNITY



1-2 FRANCE  
3 PORTUGAL  
4 SPAIN  
5 FRANCE  
6 ITALY

7-8 FRANCE  
9-11 FRANCE  
10 GERMANY  
12-13 GERMANY

# EARTH ARCHITECTURE

australia

TRADITION

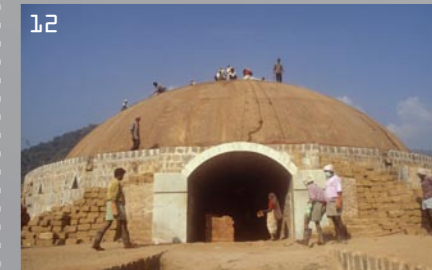


1 ARABIE SAOUDITE  
2 IRAN  
3-4 NEPAL  
8 YEMEN  
7 TURKMENISTAN



MODERNITY

5-6 INDIA  
11 AUSTRALIA  
10 SAUDI ARABIA  
9 KOREA  
13 AUSTRALIA  
12 INDIA



# asia

## WEALTH AND MODERNITY AROUND THE WORLD

america

MODERNITY



1 CUBA  
2 PERU  
3-4 USA  
5 MEXICO  
8 USA  
9 FRENCH GUIANA



6 USA  
7 EL SALVADOR  
10-11 PERU  
12 BRAZIL  
13 BOLIVIA



TRADITION



africa

MODERNITY



1 UGANDA  
2 MAYOTTE (France)  
3 BURKINA FASO  
4 NIGERIA  
5 SOUTH AFRICA  
6 MOROCCO  
7 BURKINA FASO



8 MALI  
9 SOUTH AFRICA  
10 CAMEROON  
11 MADAGASCAR  
12 MAROCCO  
13 GHANA




TRADITION

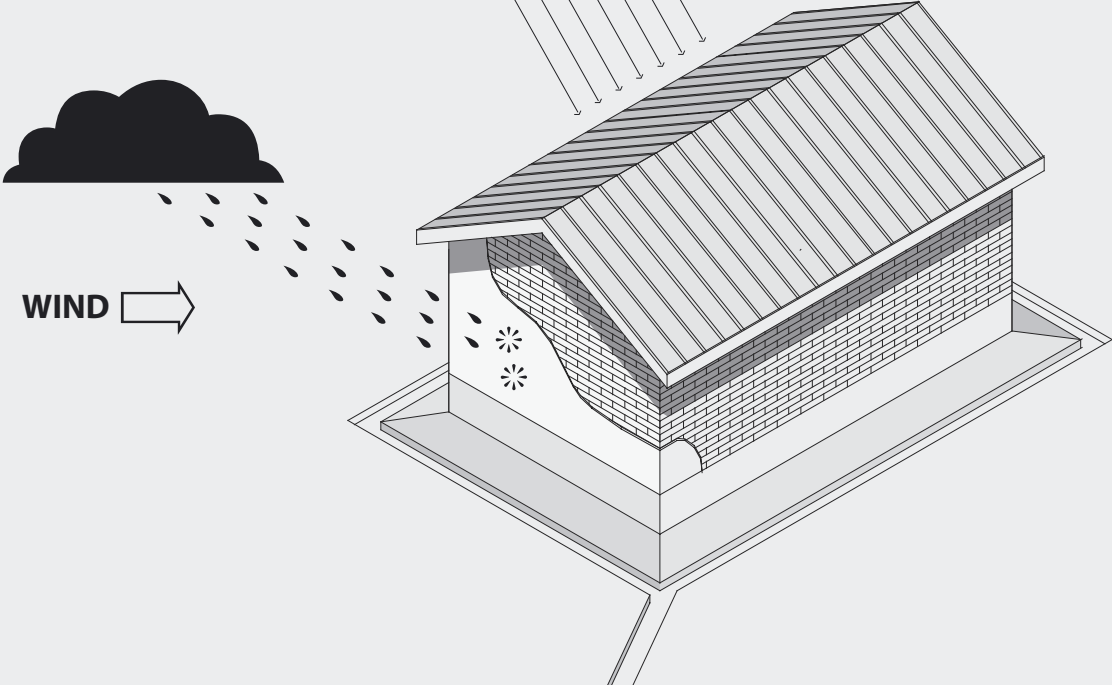


SITE SELECTION AND BUILDING ORIENTATION


Before constructing, it is necessary to think well about the choice of the site and the orientation of the building.




The durability of a building first of all depends on the context in which it is constructed. It is necessary to consider several factors before the construction, such as the nature of soil, the climate (rain, wind, sun...), the topography of the site, etc



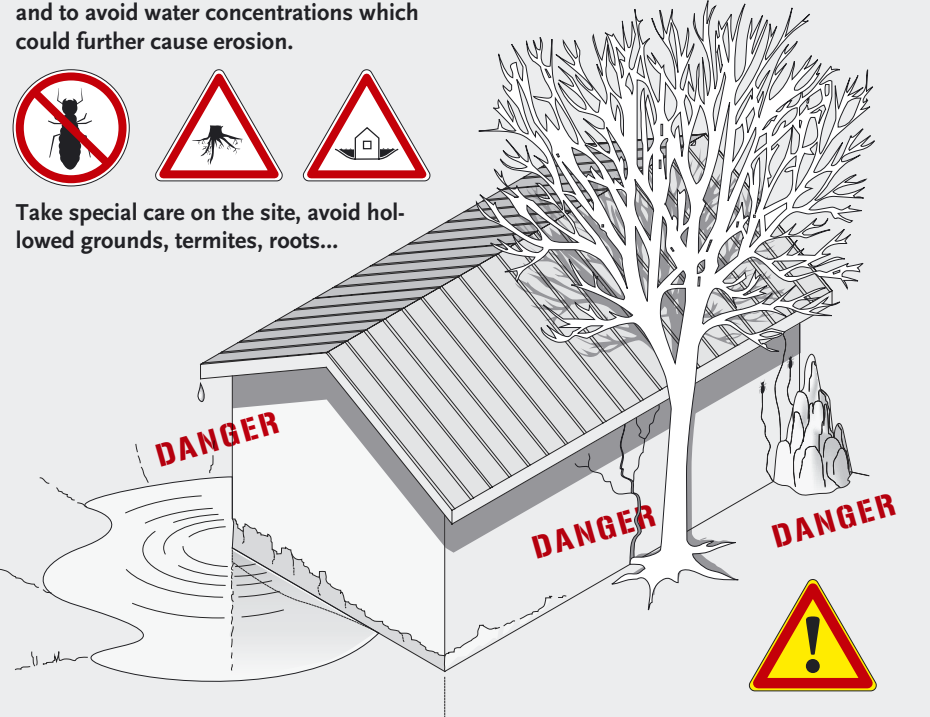
The orientation of the building must guarantee good protection against rains, winds, direct solar exposition.



Provision should be made for the whole building periphery in order to drain the stream waters far from the foundations and to avoid water concentrations which could further cause erosion.

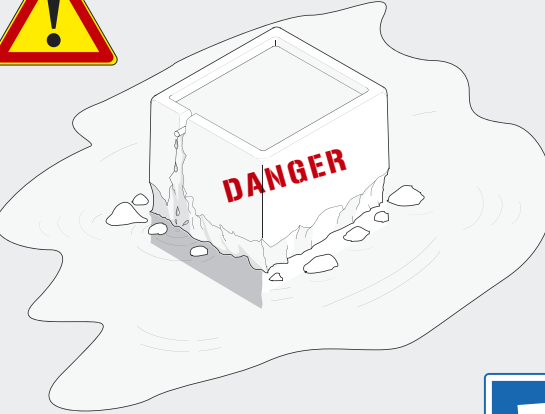



Take special care on the site, avoid hollowed grounds, termites, roots...





GOOD BUILDING PRACTICES

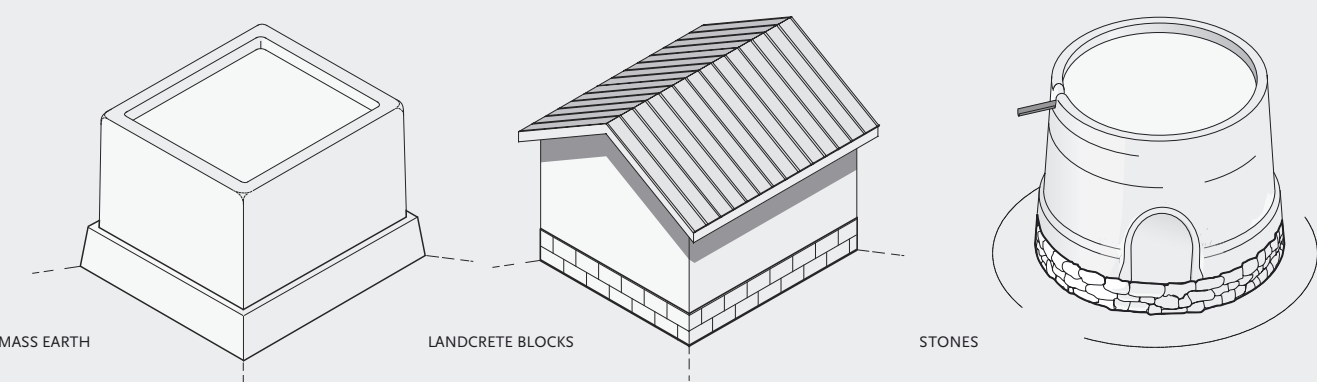
FOUNDATIONS AND BASEMENTS



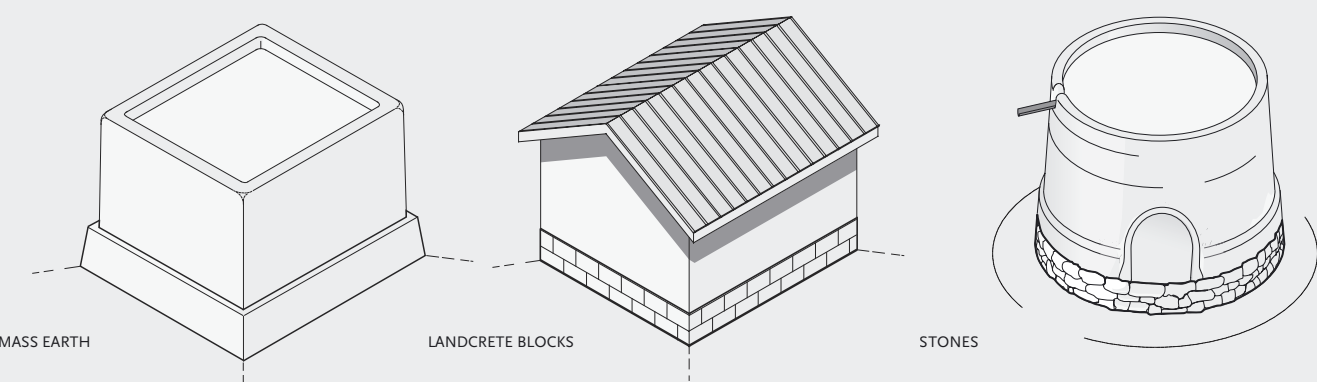
WATER STAGNATION AT THE BASE OF A BUILDING WILL ALWAYS ENTAIL TECHNICAL PROBLEMS.



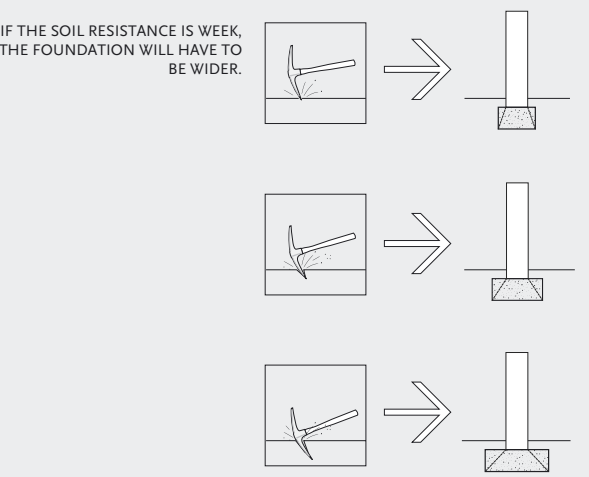
THE FOUNDATION SHOULD PREVENT MOISTURE PENETRATION INTO THE BUILDING. DRAINAGE OF THE SITE WILL OFFERS GOOD GUARANTEES OF DURABILITY. TO IMPROVE THIS, WE MAY ADD MATERIALS AT THE WALL BASE AND A CAPILLARY BARRIER AT THE TOP OF THE FOUNDATION.



The role of the base wall is to protect the rest of the wall from any contact with water. The material used for base walls should be strong enough to resist the total weight of the building, and should also be resistant or protected against moisture penetration. Materials mostly used for base walls include mass earth, stones, burnt brick, cement blocks, landcrete blocks.



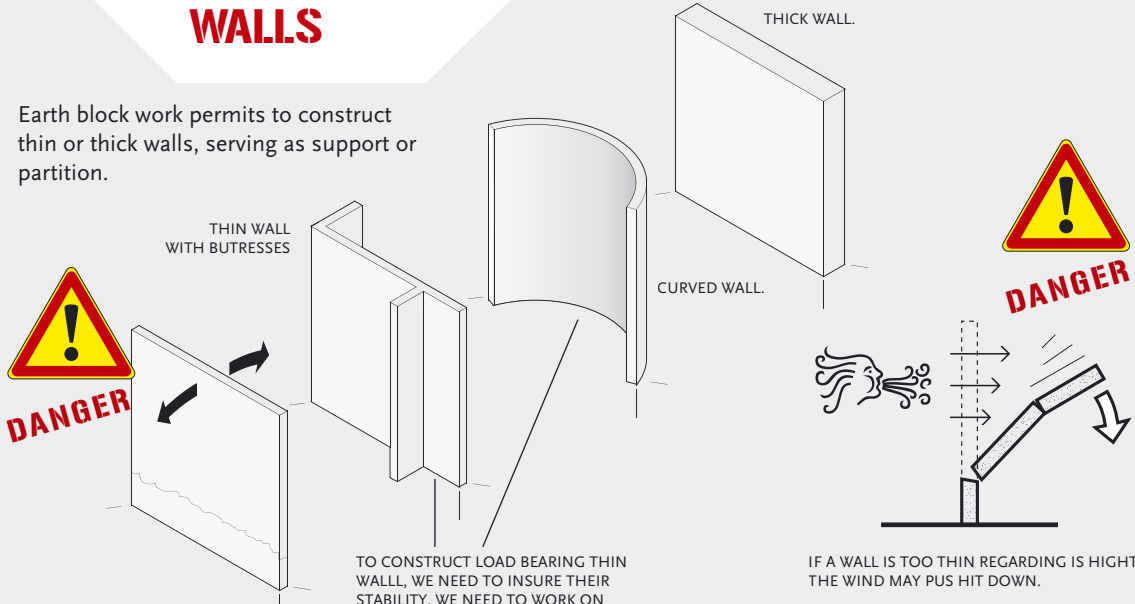
The foundations permit equal distribution of the weight of walls and roof into the ground. They should be strong, resistant to compression, and should ensure total wall stability. To achieve this function, they should be constructed on hard and good soil, in resistant, durable and quality materials.



EARTH ARCHITECTURE

**WALLS**

Earth block work permits to construct thin or thick walls, serving as support or partition.



THIN WALL WITH BUTRESSES

THICK WALL

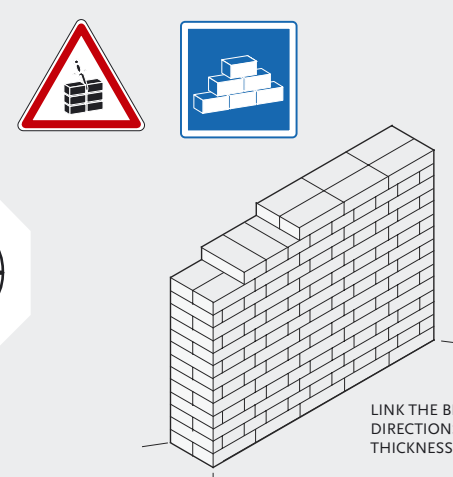
CURVED WALL

**DANGER**

TO CONSTRUCT LOAD BEARING THIN WALL, WE NEED TO INSURE THEIR STABILITY. WE NEED TO WORK ON THEIR SHAPE TO IMPROVE THEIR STABILITY.

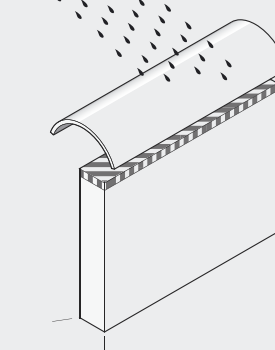
THIN WALL, USUALLY USE FOR PARTITION WALLS.

It is the way to assembly and link the blocks between them, in all directions (horizontal, vertical, thickness of the wall). Good joining guarantees stability and solidity of the wall.



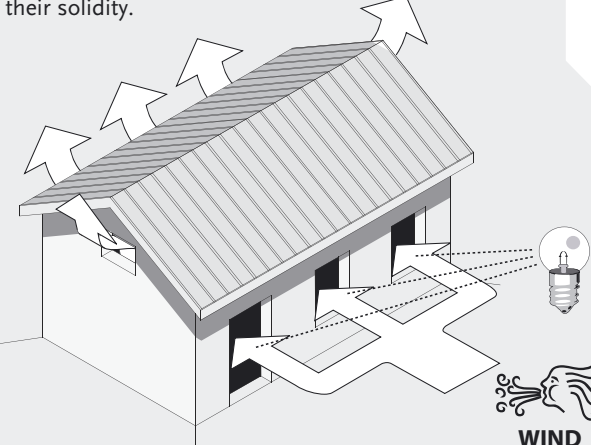
LINK THE BLOCKS BETWEEN THEM, IN ALL DIRECTIONS. HORIZONTAL, VERTICAL AND THICKNESS OF THE WALL.

If the main walls are build out of non water resistant material, it is recommended that the top layer of these walls will be protected with a layer of water resistant building material.



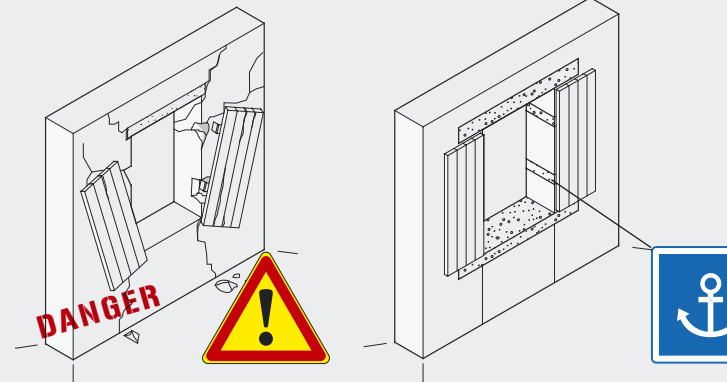
**OPENINGS**

The openings permit to illuminate and to ventilate the inside of the building. They represent nevertheless a weak point in the structure of the building. It is often from the openings that appear many cracks. Therefore it is necessary to look after their solidity.



WIND


The vibrations and shocks resulting from the manipulation of the doors and windows can cause some cracks in the walls. It is therefore necessary to anchor well the joineries in the masonry. In the masonry around the windows, integrate some resistant blocks which will serve later to reinforce the frames anchorages.



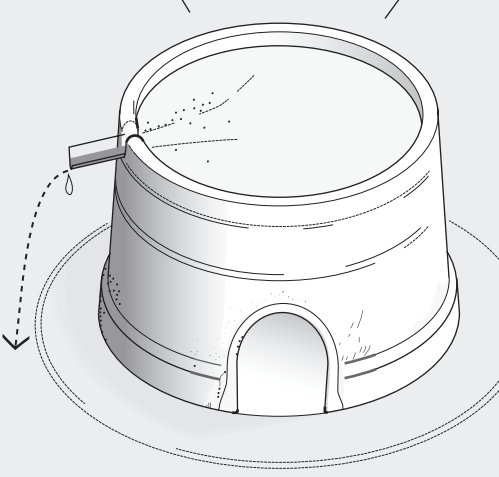
**DANGER**

**ROOF**

The earth constructions must be protected with good roofing, especially in the regions affected by raining seasons. The roofing is like a «hat» for the earth constructions; it must allow the evacuation of rain waters and preserve the building from humidity.



The mud flat roofs are more sensitive to water than the sloping roofs, and need a permanent maintenance, but because of their good thermal insulation, they are well adapted for hot and dry climates.

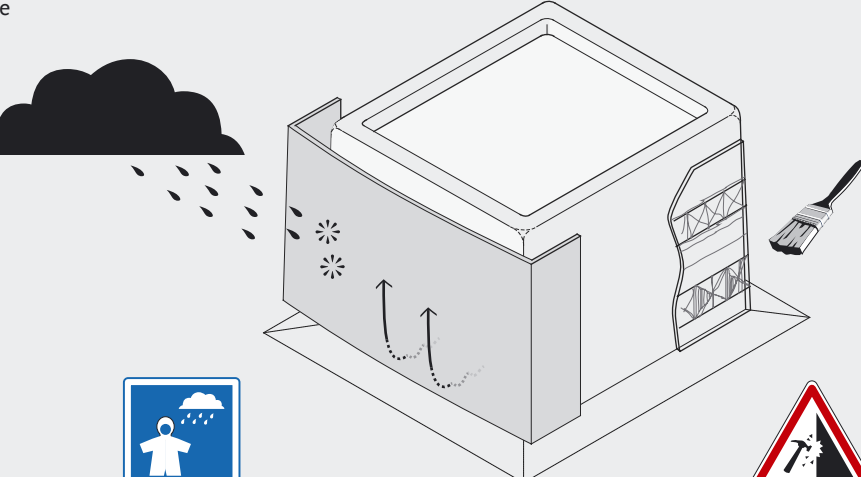


10 YEARS

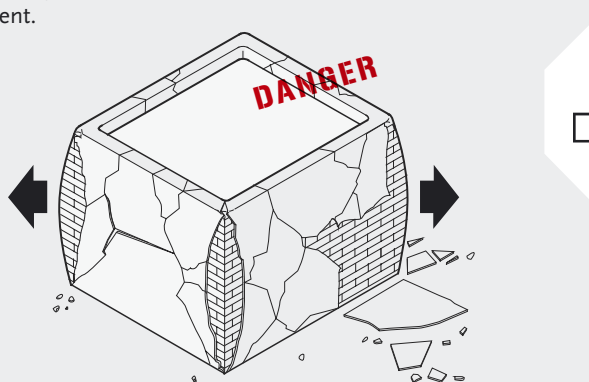
1-5 YEARS

**PLASTERING**

The main functions of the plastering are the protection of the wall from rain and shocks, the prolongation of the wall lifetime and the improvement of the appearance of the wall.



A good plastering should have a good adhesion to the wall without causing any damage to it, should be flexible enough to absorb possible distortions of the wall without cracking, should be water resistant to some extend but also permeable enough to let water and steam go out from the wall, and finally should have good appearance compatible with the local environment.



**DANGER**