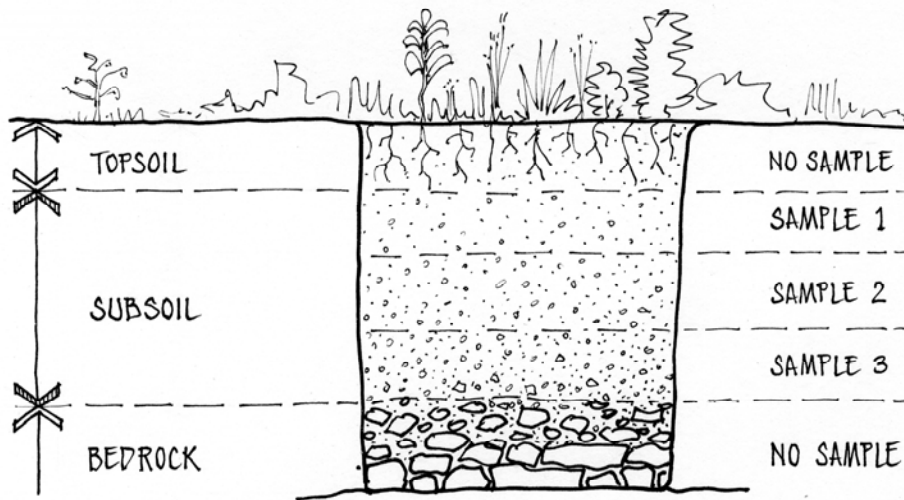



LIST OF CONTENTS

SOIL ANALYSIS	2
SOIL COMPOSITION:	2
FUNDAMENTAL PROPERTIES:	3
BEHAVIOUR OF SOILS IN THE PRESENCE OF WATER:	4
SOIL SUITABILITY:	6
SOIL IDENTIFICATION:	7
PREPARING A MIX & CHECKING WATER CONTENT:	15
STRAW SPECIFICATION FOR EARTH CONSTRUCTION:	17
ADOBE BRICK MAKING	18
ADOBE BRICK MOULDS:	18
MANUFACTURING THE LADDER MOULDS:	22
A SIMPLE DOUBLE BRICK MOULD	23
ADOBE BRICK MAKING PROCESS	25
ADOBE BRICK TESTING & QUALITY CONTROL	31

SOIL ANALYSIS

SOIL COMPOSITION:



Take samples from different levels in the ground 

Gravel Sand & Silt:

Gravel, sand and silt are made up of different sized particles of rock, and form the stable body of a soil, contributing to the bulk of the mass of a wall. They retain their size when wet, except silt, which may swell a little when wet. They are characterized by having insufficient cohesion to produce minimal bonding strength in the wall.

Clay:

Clay is the result of chemical weathering of rock, particularly silicates. It acts to bind the aggregate in a soil together. It is characterized by its stickiness when damp and its hardness when dry. Unlike other grain sizes, it is generally unstable and will swell when wet and shrink when dry, often resulting in cracking. Clay is made up of tiny microscopic particles, coated in a film of water, held by electrostatic forces creating a surface tension and it is this water, which binds the particles together.

Balancing the amount of clay with a range of gravel, sand and silt is an essential part of building successfully with earth. If needs be strength can often be improved with use of admixtures and stabilizers.