Terracing Hillsides

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Terracing Hillsides

- Why terrace?
- Tools for terracing
- How to make terraces

Why terrace?

- Corrects minor erosion problems
- Creates moist places to encourage grass growth
- Creates good places for tree planting

A successfully terraced Hillside

Why terrace hillsides?

- Correct minor erosion problems

Where will terracing mak

Minor erosion problems- Maybe terrace

Minor erosion but grass is present… Do not terrace

Erosion Rills Beginning...
A good place to terrace

Small erosion rill…
Ideal for terracing

Gully…
Terracing will not help

Terracing to make good grass and planted tree growth

Tools for Terracing

- Pickax and shovel
- A-frame

Pickax

- The pickax is the most powerful of the simple forestry tools. Like most powerful tools, it can be used to accomplish benefits and can be used to accomplish great harm. In some places, pickaxes have been used to remove tree roots and bushes. This has destroyed forest vegetation and started the process of soil moving down the hillside. Sometimes, deep gullies have been formed that resulted from the small channels created by digging up tree roots and bushes. These soils have damaged irrigation systems and made farming improvements difficult in areas downhill from the gully. The proper use of a pickax can help prevent this problem.

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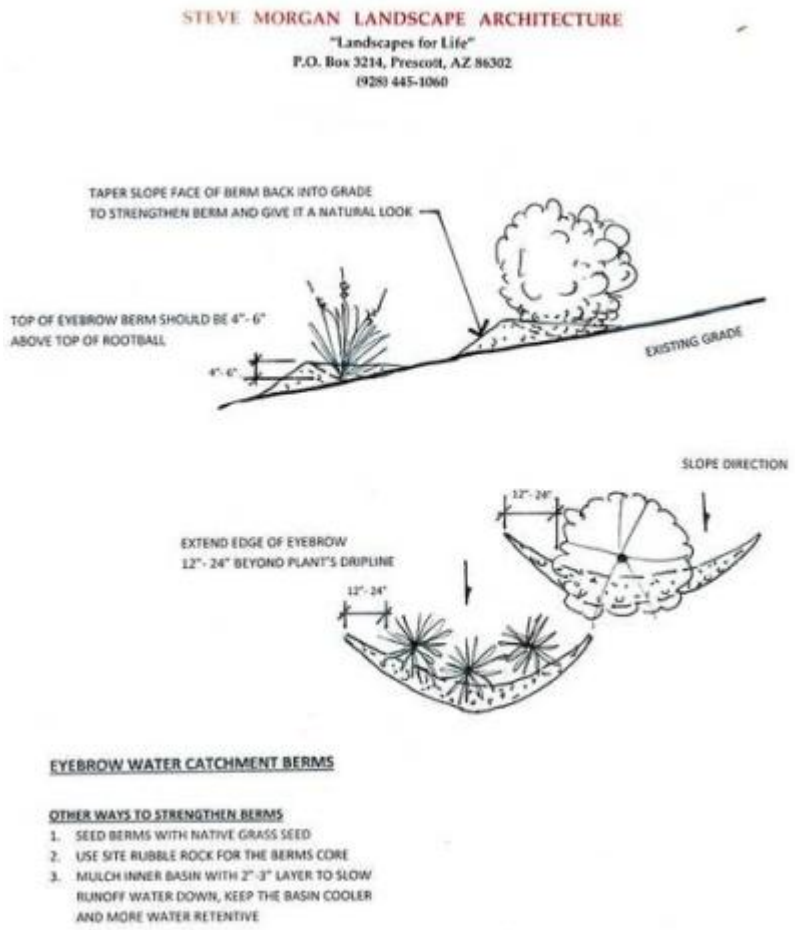
Pickax

- Removing rills
- A rill is a small indentation in the soil that forms when water starts to move down hill. Rills form mostly on hills where there is not enough grass to slow the downhill flow of water.
- Covering small rills with small amounts of soil can prevent these from developing into gullies. Grass and other vegetation should then be allowed to grow at that location and uphill to prevent new rills and gullies from forming.

How to Make Terraces

- Terraces are formed by facing uphill and scraping rock and soil downhill into a long, narrow ridge that runs along the hillside. A shovel can be use to help move soil once it has been loosened and to make the sides of the terrace even. This is the basic procedure for using a shovel and pickax to make a terrace.

Eyebrow Terraces



- Eyebrow terraces are made by scraping soil and rock into a crescent shaped ridge where both ends join the hillside. The centers of pits formed by making eyebrow terraces make good locations for planting trees in dry areas since rainwater flows inward, creasting a small mosit area.

Common mistake

- Channels can form if a terrace is constructed across an existing gully. A terrace should not be used to stop an existing gully. Terraces are only help prevent the development of a new gully.

Laying out terraces

Making a Terrace

- The single most important rule when establishing a terrace is making sure it does not form a channel for moving water.
- A properly used A-frame can mark the exact location of a terrace and make certain that it is exactly level. This will give water the opportunity to sink into the soil and prevent it from flowing downhill and forming a gully.
- The A-frame can also be used after a terrace has been dug to make sure the part of the terrace that catches water is level and to make sure the distance between the ridge and the hillside is the same and looks neat.

A-frame

- An ideal A-frame is made of welded aluminum in order to be stiff and light in weight. The distance between the base of the legs should be 1.4 meters. The top bar should be exactly horizontal and high enough to be slightly below eye level to a person who will use it. A carpenter's level should be fastened firmly to the top bar.

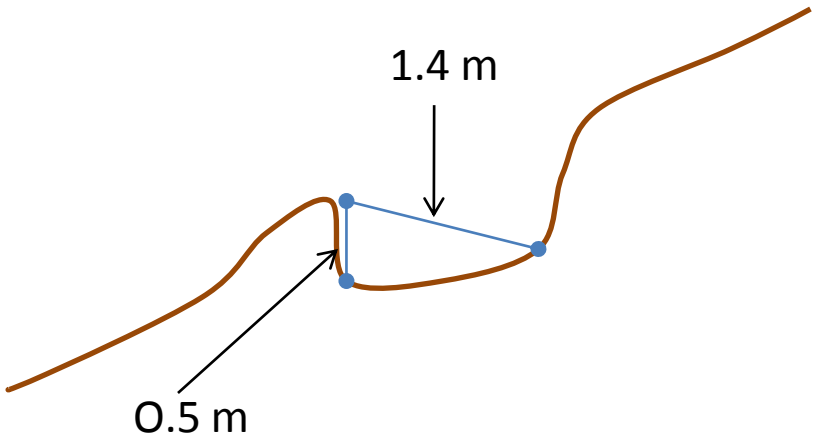
Marking terraces.

- Move the A frame on the side of a hill until it is level..
- Mark the location of the base of each leg with a stone.
- Swing one leg out 180 degrees using the other leg as a pivot until the frame is again level. Use a stone to mark the location of the new level point.
- Continue to proceed along the hillside until there is a line of stones that marks the location of the first terrace.

- Workers can begin moving soil and rock with pickaxes and shovels , leaving the stone markers at the uphill side of the terrace excavation.

- The terrace can be made uniform by ensuring the base of one A frame leg is at the top of the ridge made from excavated rocks and soil. The other leg is at the point where the bottom of the terrace trench meets the slope of the hillside

Terrace layout



- Terraces are often located approximately 4 m apart but this can be changed depending on local conditions and management objectives

Small dams and excavations can be installed to help retain water around newly planted seedlings.