Scottish Forestry / Coilltearachd na h-Alba

Forest design principles

Landform

In hilly or mountainous areas, landform is usually the most dominant and obvious shape

Landform is three dimensional, and is a big influence on forest design in upland areas

As a result we analyse the visual interpretation of landform in detail to inform the shapes in a forest

The shapes could be the outside edge, internal open spaces and felling coupes.

Forest design principles

Landform - spurs and ridges

When we look at the landform, our eye tends to follow the skyline

Then our vision tends to follow down spurs, ridges and convex landforms.

Forest design principles

Landform - visual analysis of ridges and spurs

Forest design principles

Landform - valleys and hollows

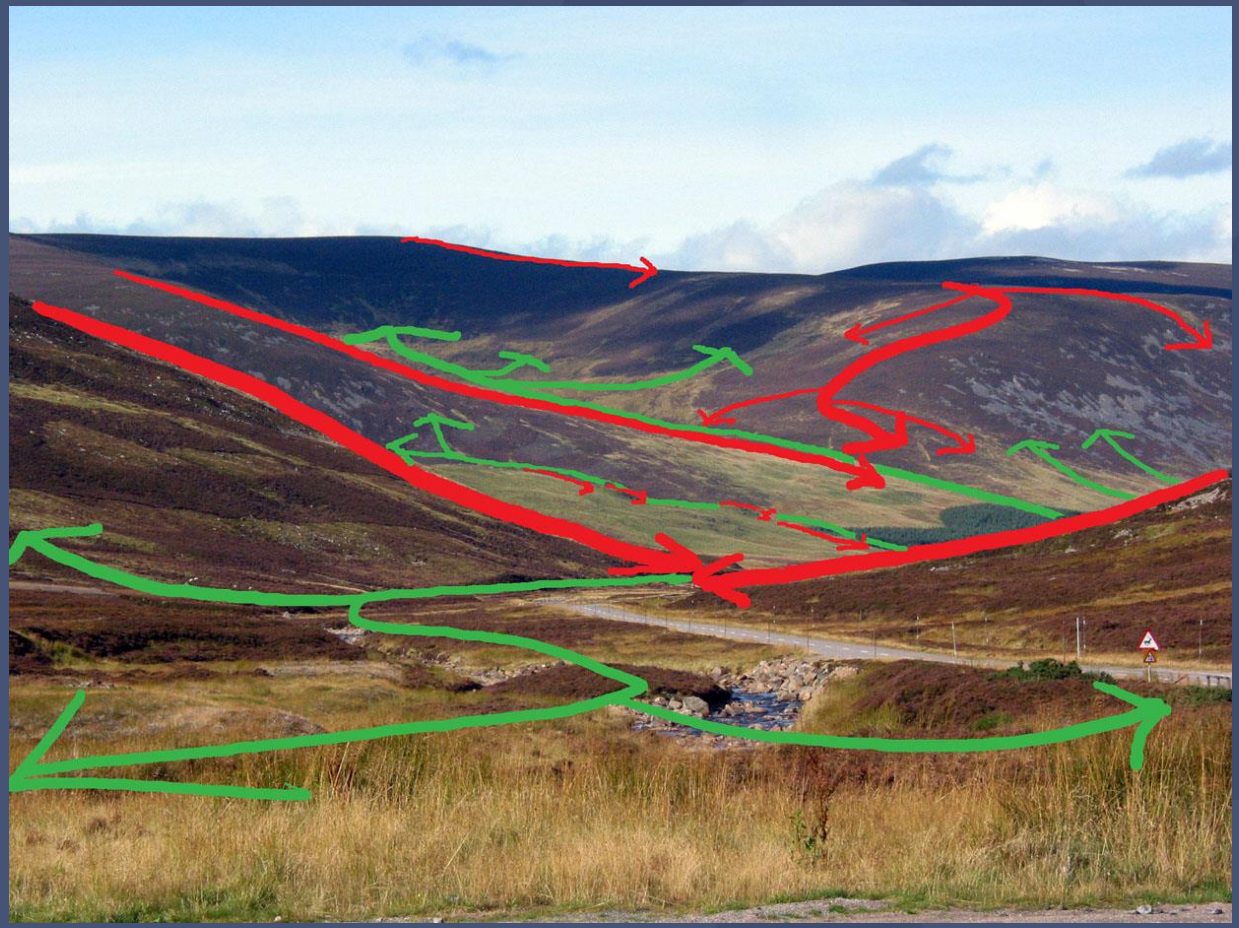
Our gaze also tends to flow up hollows, valleys and concave landforms.

Forest design principles

Landform - visual analysis of valleys and hollows

Forest design principles

Landform - visual force analysis



Forest design principles

Landform

The arrows illustrate how you read the landform and interpret it – down the ridges, and up into the hollows

This is called ‘visual force analysis’

We can use visual force analysis to inform the shapes of forest design where landform is the dominant characteristic.

Forest design principles

Landform

Forest design principles

Landform - reflecting natural patterns

Forest design principles

Landform

Planting according to visual force:

- Avoids exposed spurs and ridges
- Is focused on moisture-retentive soils
- Occupies sheltered valleys
- Makes visual sense
- Has a strong design rationale.

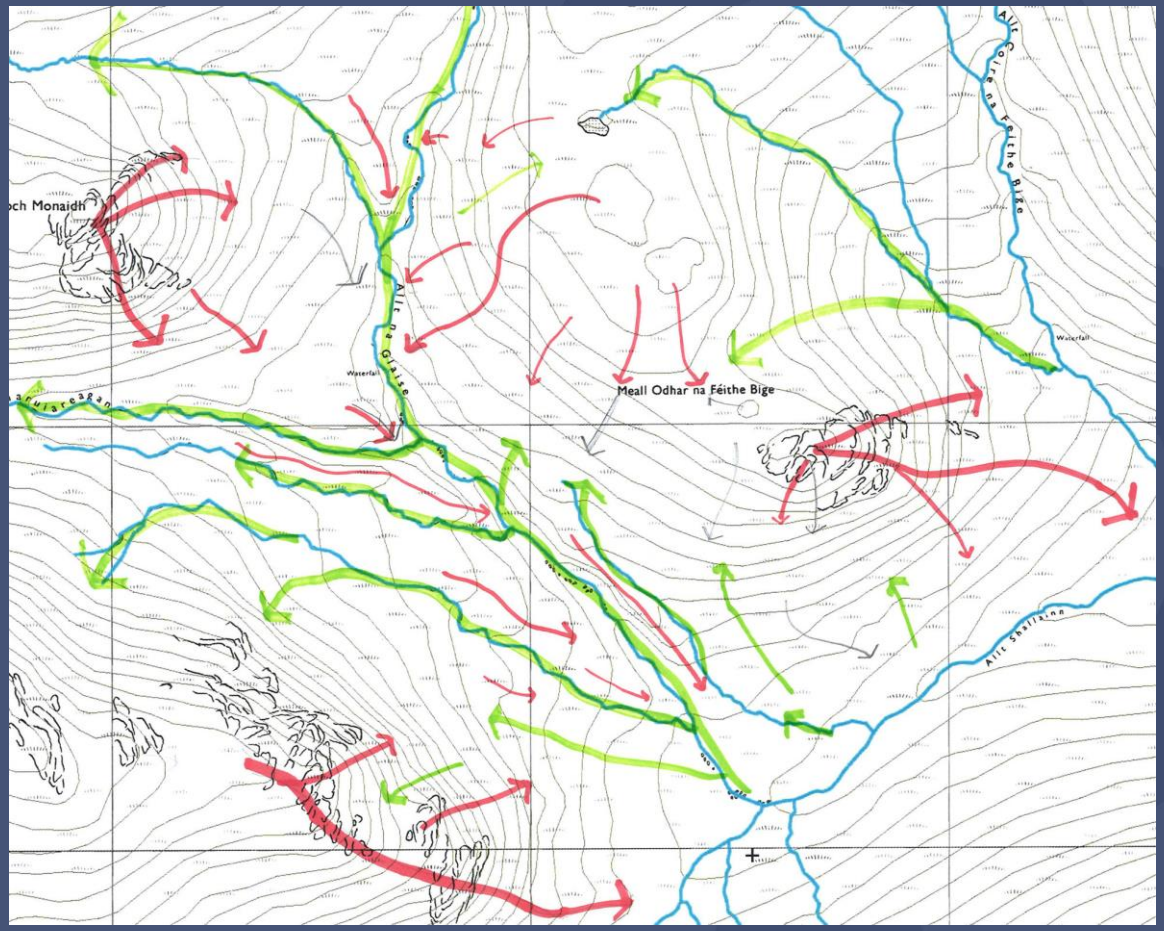
Forest design principles

Landform

Visual force analysis can also be undertaken on maps, using the contours.

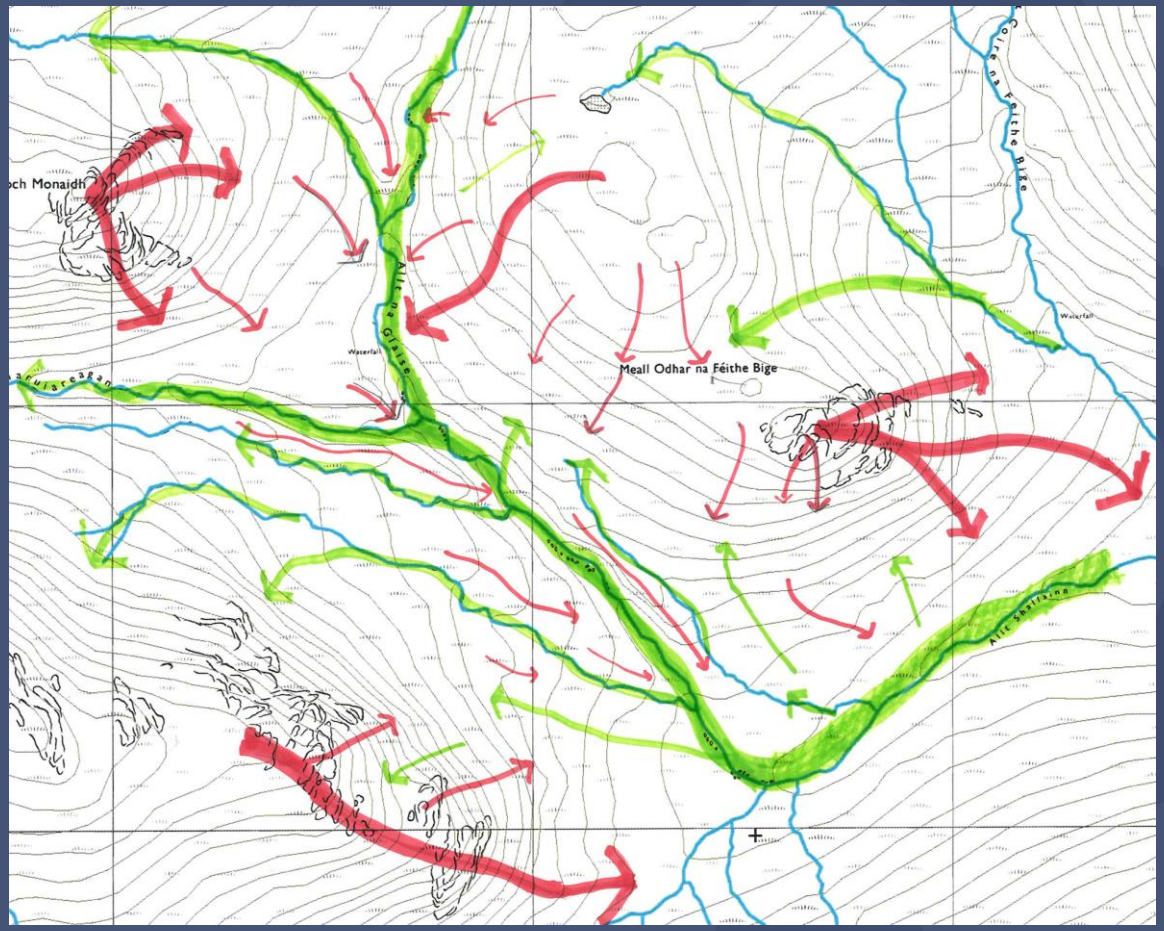
Forest design principles

Landform



Forest design principles

Landform



Forest design principles

Exercise 3 - Mapping visual force

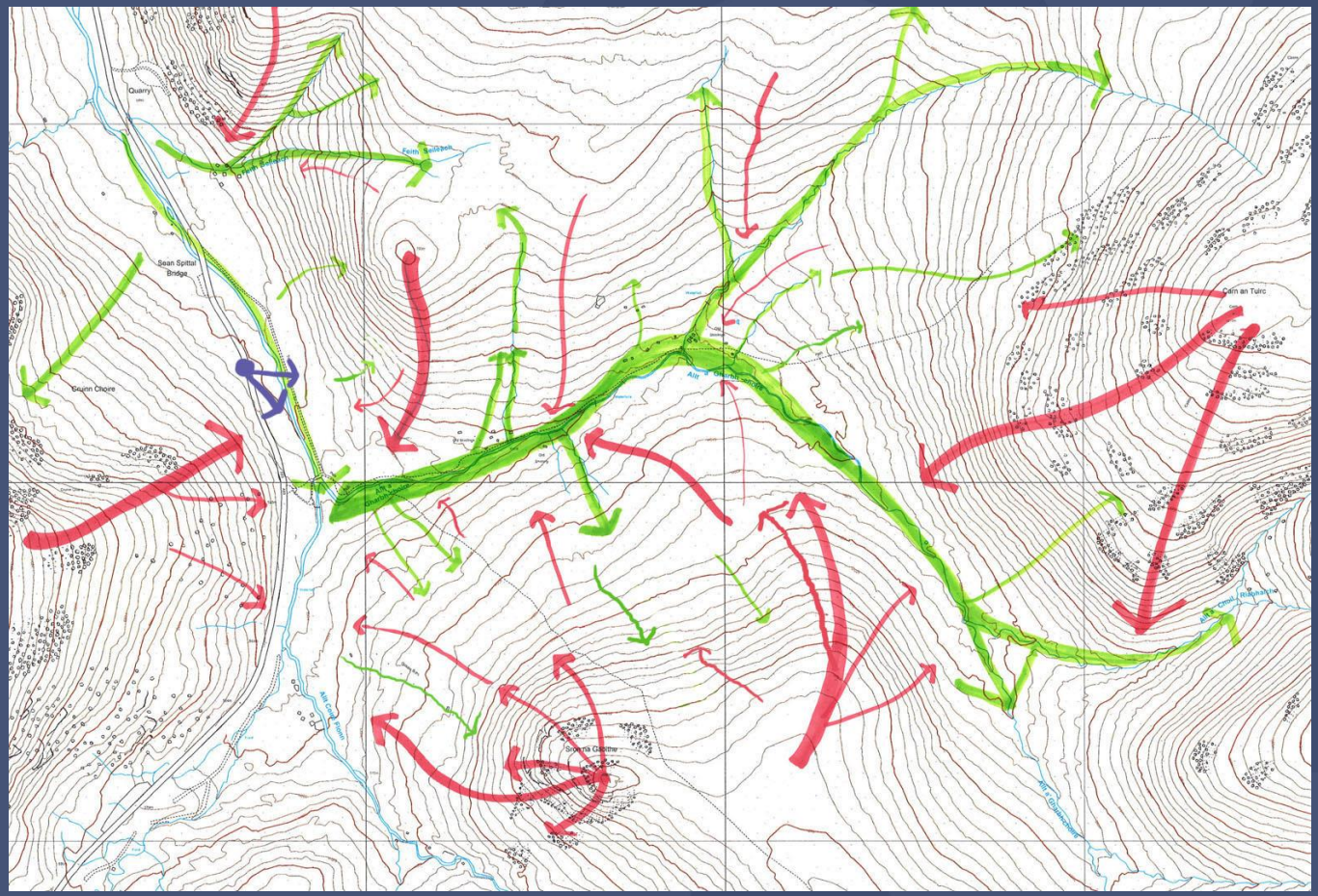
Individually…

Identify the visual forces - where the key ridges and hollows are - on the map provided

Draw the visual force analysis, using red and green arrows.

Forest design principles

Exercise 3 - Tutors response



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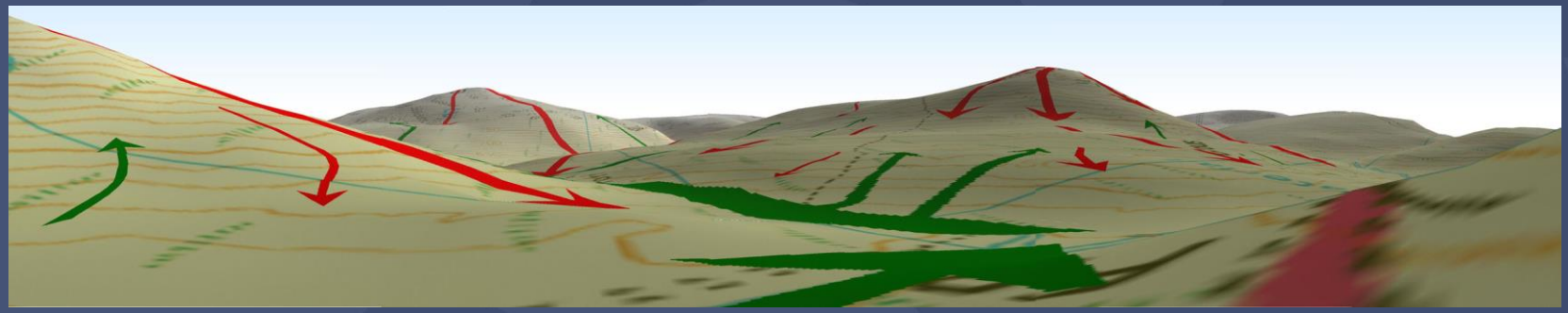
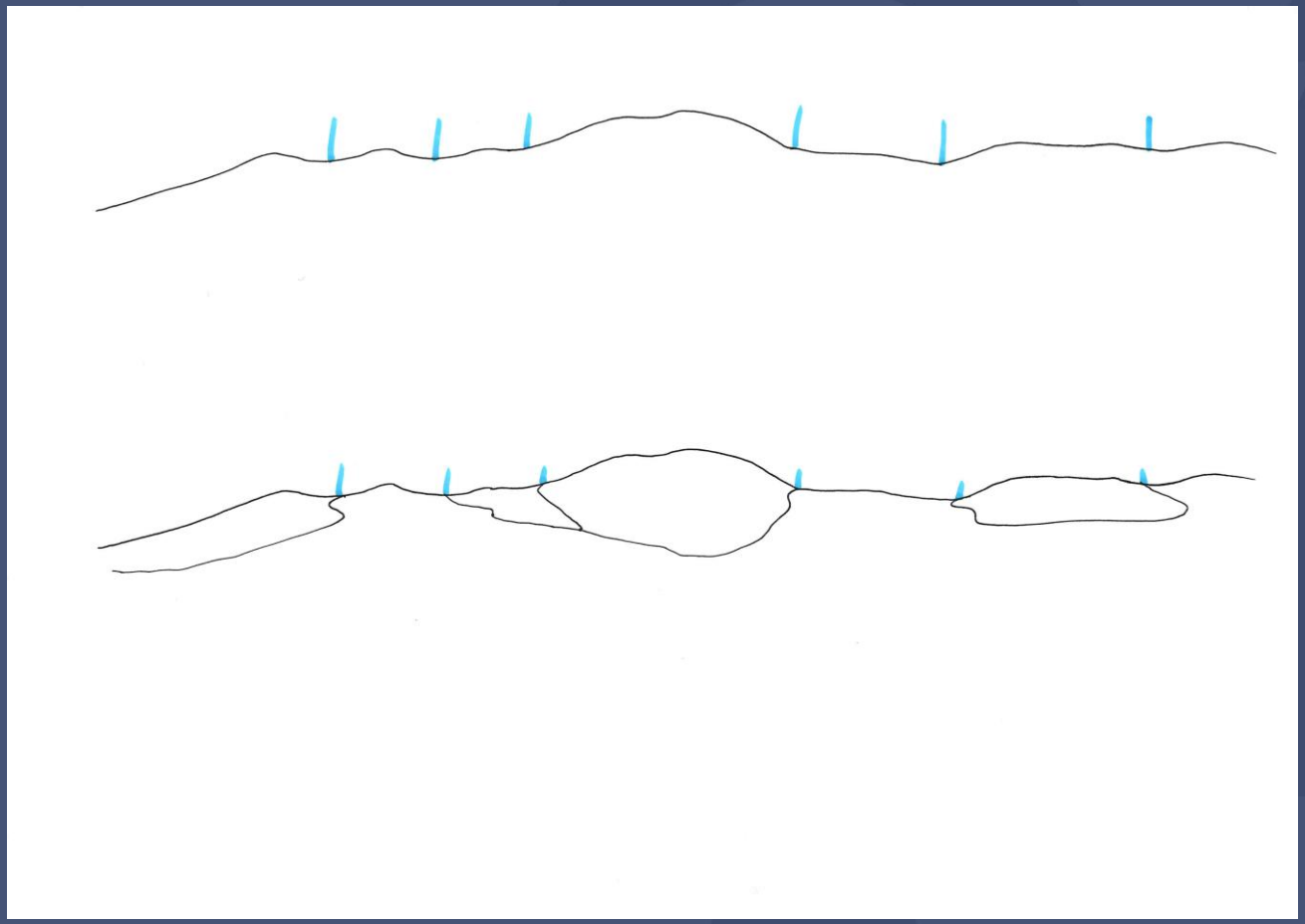
Exercise 3 - Tutors response



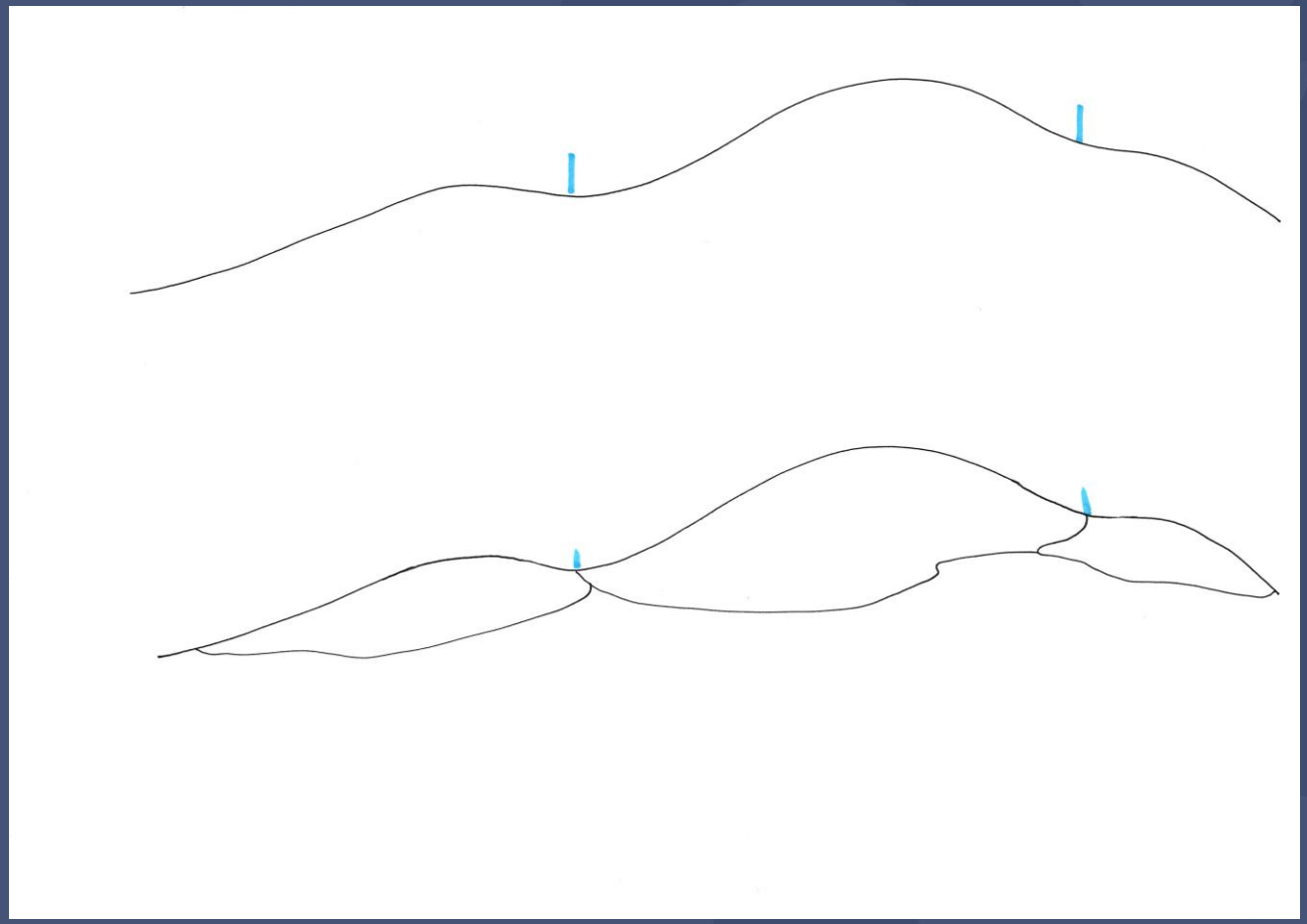
Forest design principles

Landform – break points in saddles



Forest design principles

Landform – break points in saddles



Forest design principles

Summary

In landscapes where landform is the dominant characteristic, it should be used as the key influence in forest shape

Visual force analysis can be used to analyse the landform in more detail

Using red arrows to indicate spurs and ridges

And green arrows to indicate hollows and dips…

Forest design principles

Summary

Visual force analysis can then be used to influence the shape of the forest edge, open spaces and felling coupes

Identify the best places (usually dips) for the forest or felling coupe to cross a ridge line without interrupting the integrity of the landform profile or skyline.