

A Green New Dales 17th October 2020

New Thinking behind the Design and Establishment of Tree Planting in The Dales?

Prof. Dr. Alan Simson

Emeritus Professor of Landscape Architecture + Urban Forestry

Leeds Beckett University

Chair White Rose Community Forest

Executive Committee Skipton Civic Society

Change is now the norm...

- We live in a time when it seems as if almost anything could happen...
- Technology, ecosystems, politics, economies, our everyday habits; change is ubiquitous...
- Some change is positive; some less so. Mutability is something we are having to learn to live and work with...

Changes in the Urban Areas in the UK...

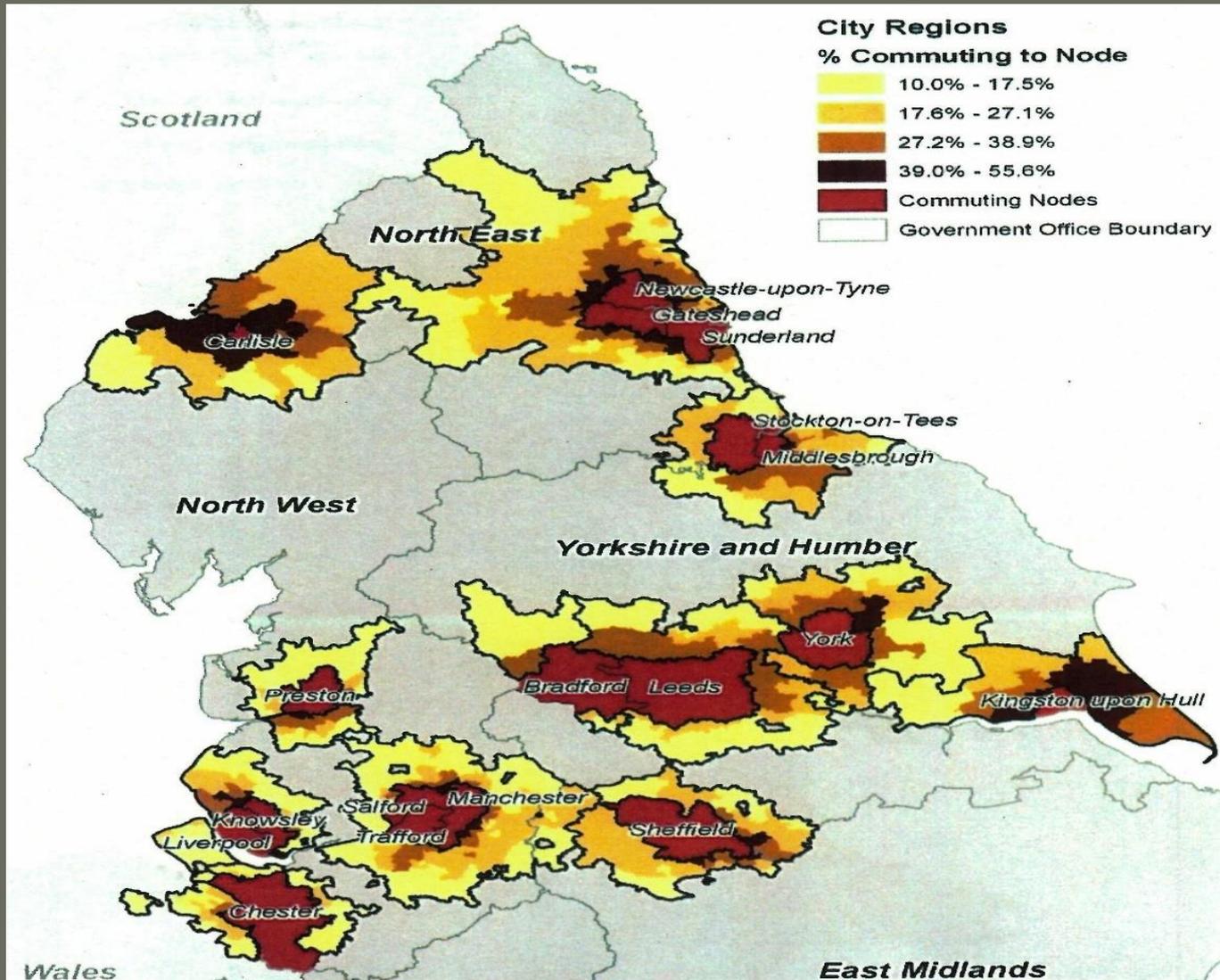


- UK an urban country from 1851
- **1970 – 2005** : 5 million + more (35 years)
- **2005 – 2016** : 5 million + more (11 years – 65.6 million population)
- **2026** : estimated 69.2 million population?

Is 'Urban' and 'Rural' also out of date? e.g. current tree planting domains...

- Urban
- Semi-Urban
- Peri-Urban
- Ex-Urban (Commute)
- Rural

Commuting in our Region...



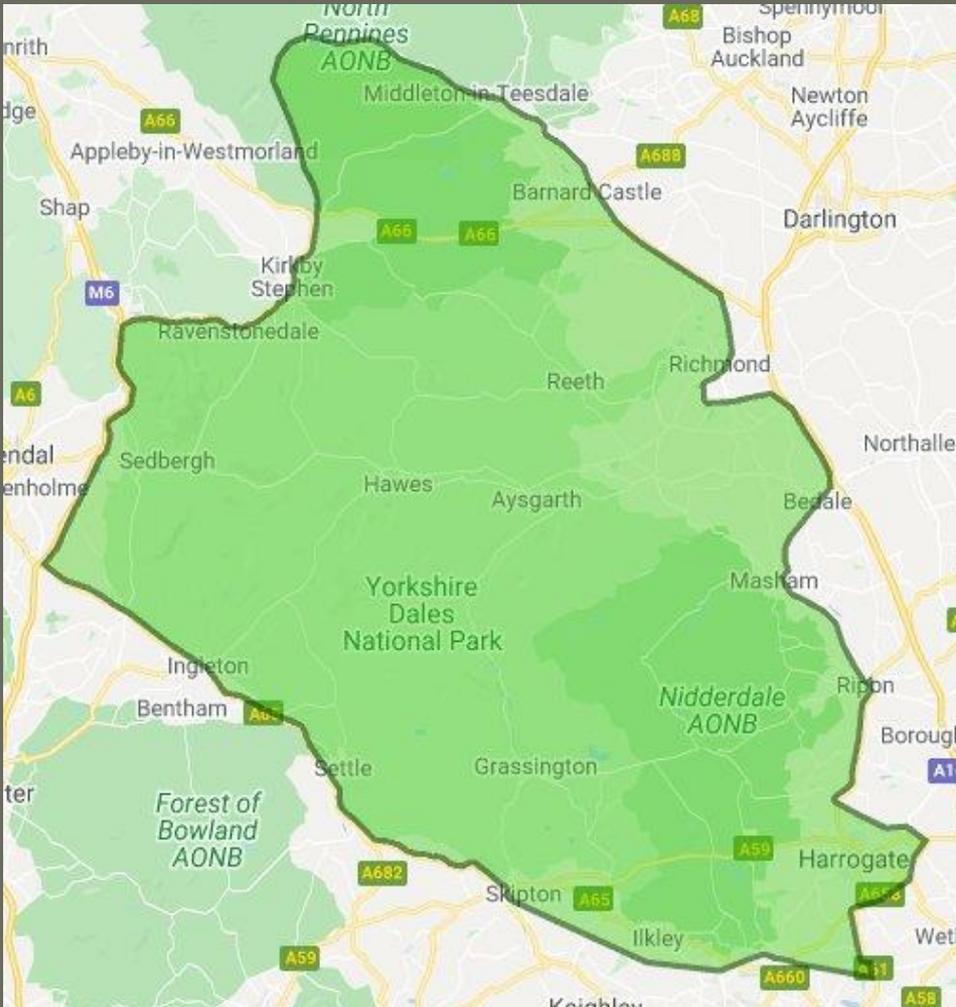
But let's think of positive change...

- Humans have had a long, deep, cultural relationship with Nature, their trees, their woodlands and their landscapes - a relationship that, I would argue, transcends national cultures, and which sits as an equal alongside our scientific, economic, ecological and spiritual relationships...
- But since most of us now live in towns and cities, are people more interested in the price of a loaf of bread or a litre of car fuel than Nature: has Nature and especially trees become more of a 'cosmetic'?...**NO - I DON'T THINK SO, particularly not during CORVID 19..**
- Re-discovering and planting trees and woodland has, arguably, done much to start positively re-kindling this relationship between people, Nature and their landscapes. It is an optimistic scenario, that is always looking forward to the future, and strives for our futures to be happy, healthy, creative and successful...

Local Examples...



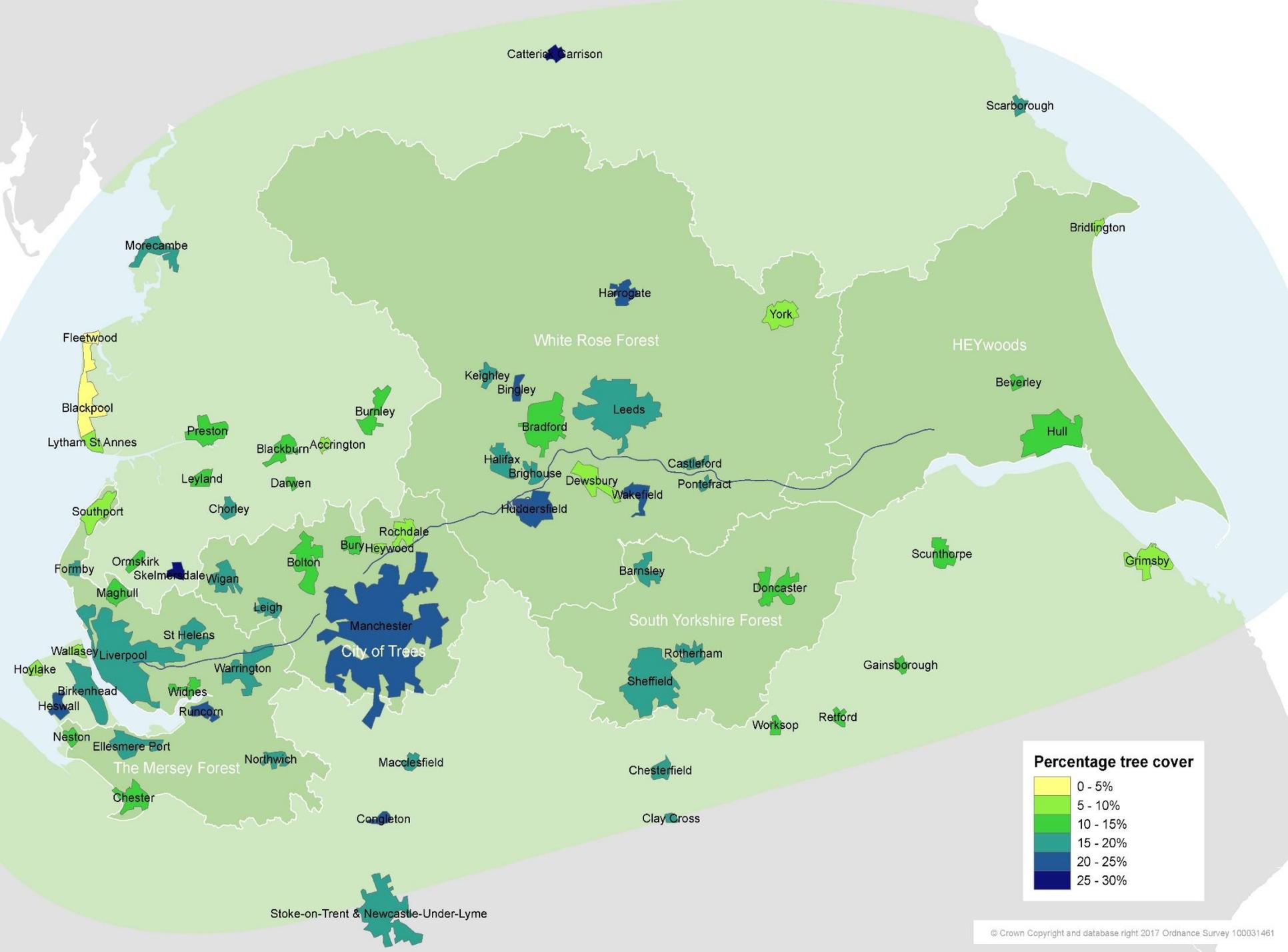
The Dales National Park



- Expanded in 2016
- Now covers 2179 km² (841 sq miles)
- Home to about 24,000 people
- Destination for over 10 million visitors per year...
- Five Visitor Centres – Aysgarth Falls, Grassington, Hawes, Malham & Reeth

Why do people visit The Dales?

- To engage with 'Nature' and the 'natural' landscape, to relax, and to enjoy themselves.
- But basically they want
 - **a view, with**
 - **a brew, and**
 - **a loo.**
- Trees and woodlands are very much part of this...



Catterick Garrison

Scarborough

Bridlington

Morecambe

Harrogate

York

White Rose Forest

HEYwoods

Fleetwood

Blackpool

Lytham St Annes

Preston

Burnley

Leeds

Beverley

Hull

Blackburn Accrington

Keighley

Bingley

Bradford

Halifax

Brighouse

Dewsbury

Wakefield

Castleford

Pontefract

Huddersfield

Leyland

Darwen

Chorley

Southport

Bury Heywood

Rochdale

Barnsley

Scunthorpe

Grimsby

Formby

Ormskirk

Skelmersdale

Wigan

Bolton

South Yorkshire Forest

Doncaster

Wallsley

Liverpool

St Helens

Warrington

Manchester

Rotherham

Gainsborough

Hoylake

Birkenhead

Widnes

Runcorn

Sheffield

Worksop

Retford

Heswall

Neston

Ellesmere Port

Northwich

Macclesfield

Chesterfield

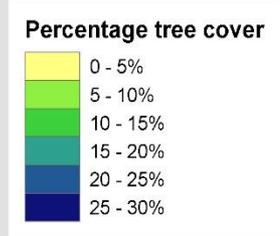
The Mersey Forest

Congleton

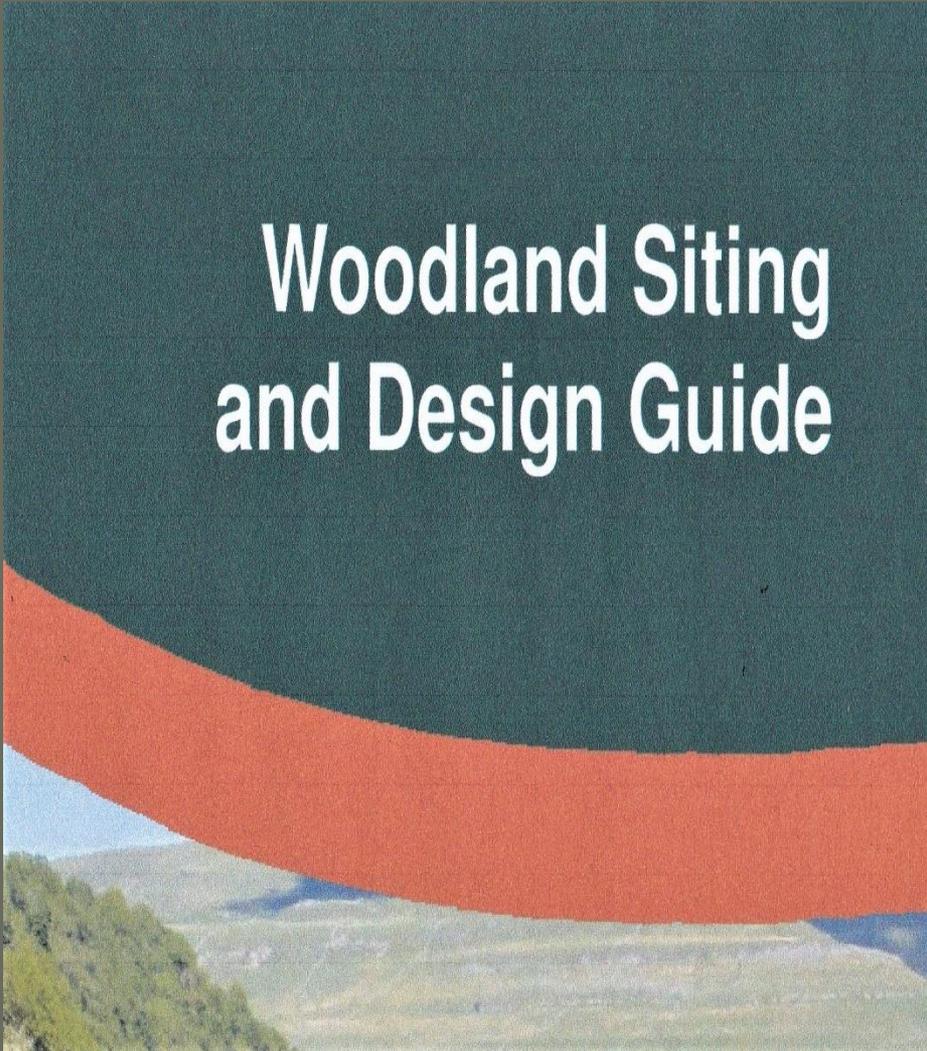
Clay Cross

Chester

Stoke-on-Trent & Newcastle-Under-Lyme



The Dales' Woodland Siting and Design Guide



Woodland Siting and Design Guide

- provides an overview of the contributions that woodlands can make to The Dales;
- considers the siting and design of woodlands in typical Dales landscapes;
- looks at the sensitivities to forestry and woodlands that exist, and
- considers other design issues, such as fencing and walls, and tree guards...

Tree Planting in the Green New Dales...

- What has been achieved?
 - It was proposed in 1995 to double the woodland cover by 2020 by restoring native woodlands – **achieved!**
 - Tree cover of The Dales is now about 5% (UK cover just under 13%; average EU cover 37%)
- What next?
 - Plant more trees – **the right trees, in the right place, for the right reasons - let's look at this in reverse order...**

What were the reasons for planting the trees in The Dales?

- To create new habitats for wildlife & support biodiversity;
- To create natural places and spaces where people can relax and enjoy themselves;
- To absorb carbon & help to combat climate change;
- To protect the landscapes within and without the National Park from flooding & erosion;
- To restore parts of the 'natural landscape' that have been lost due to historical woodland clearance , and
- To bring farming and woodlands closer together as each benefits from the other...
- **THESE ARE STILL THE RIGHT REASONS FOR TREE PLANTING NOW...but...**

Additional reasons for planting more trees...

- There is no such thing as a static landscape – they are either on their way up or on their way down...
- The need to design and provide places that will improve the health and well-being of visitors;
- The need to engage further in **recombinant ecology** – we have to increase biodiversity in our human-dominated landscapes;
- The need to engage further in **Agro-Forestry**. Farming and Forestry have been apart for far too long – they really compliment each other ...

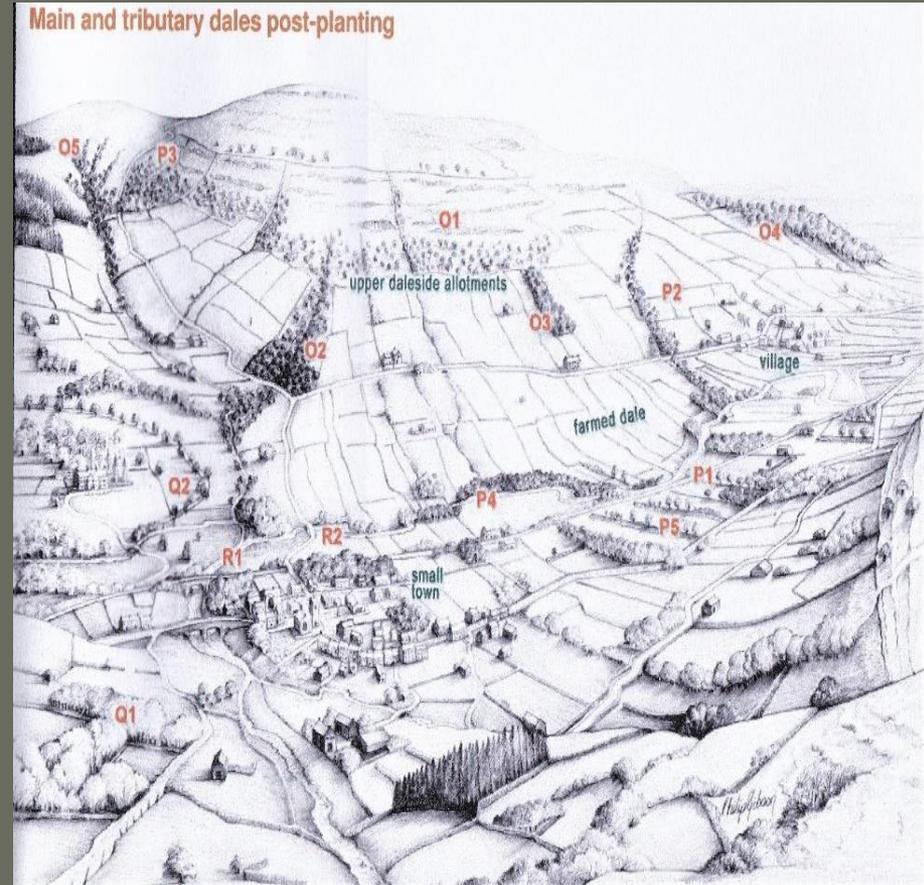
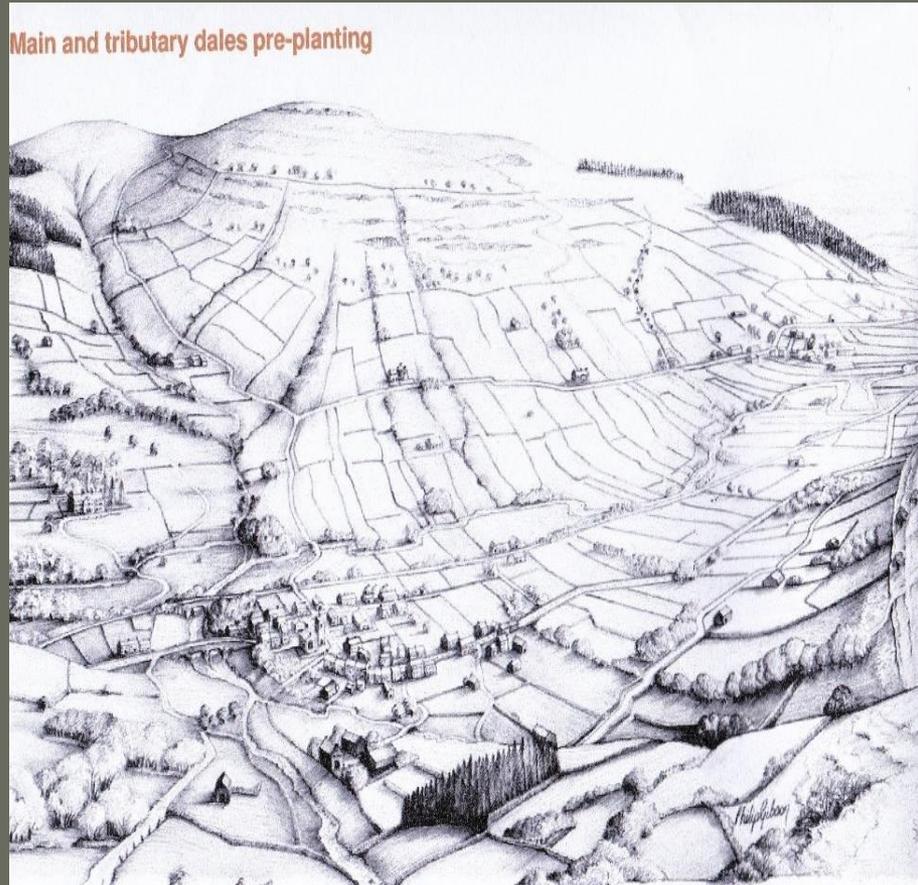
RECOMBINANT ECOLOGY...

- A relatively new field of ecology that acknowledges that, whether we like it or not, due to climate change, non-indigenous flora and fauna do and will have roles and functions to contribute to the natural processes of our emerging future landscapes...

Trees in the right place - the Dales – before expansion...



Main and Tributary Dales - before and after planting...

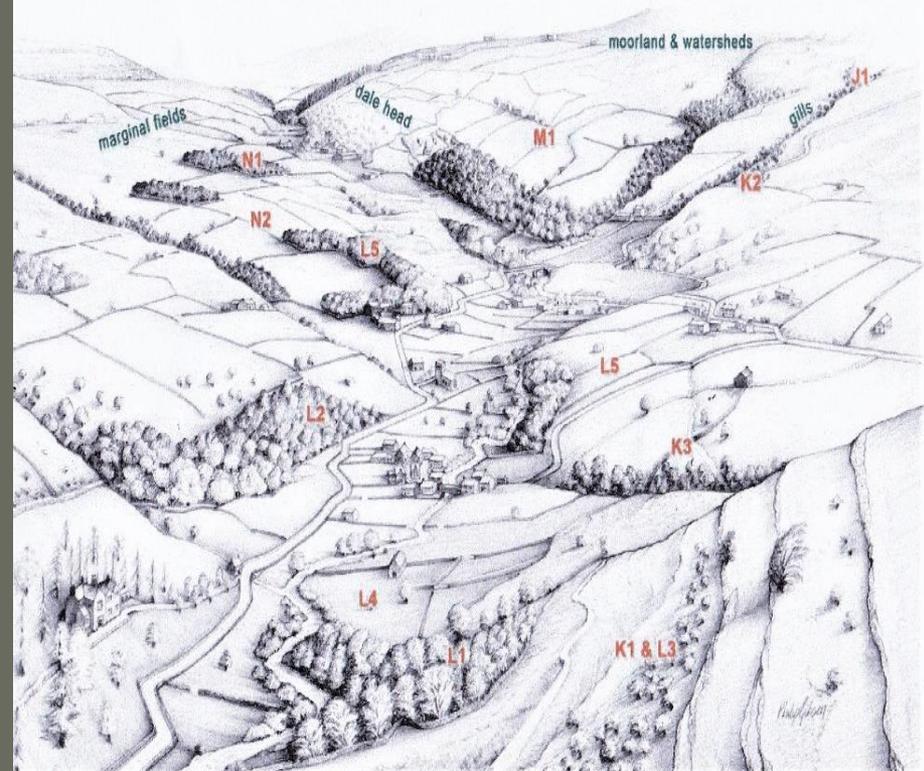


Moors and Upland Dales - before and after planting...

Moors and upland dales pre-planting



Moors and upland dales post-planting



The Limestone Fells – before and after planting...

Limestone fells and dales pre-planting



Limestone fells and dales post-planting

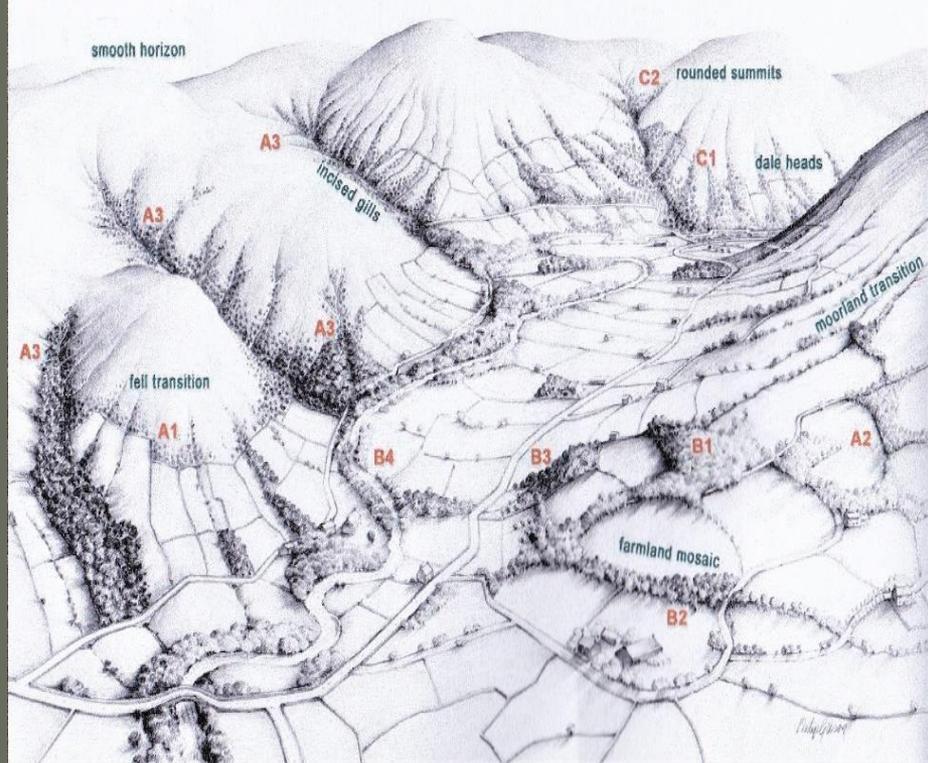


Howgill Fells – before and after planting...

Howgill Fells pre-planting

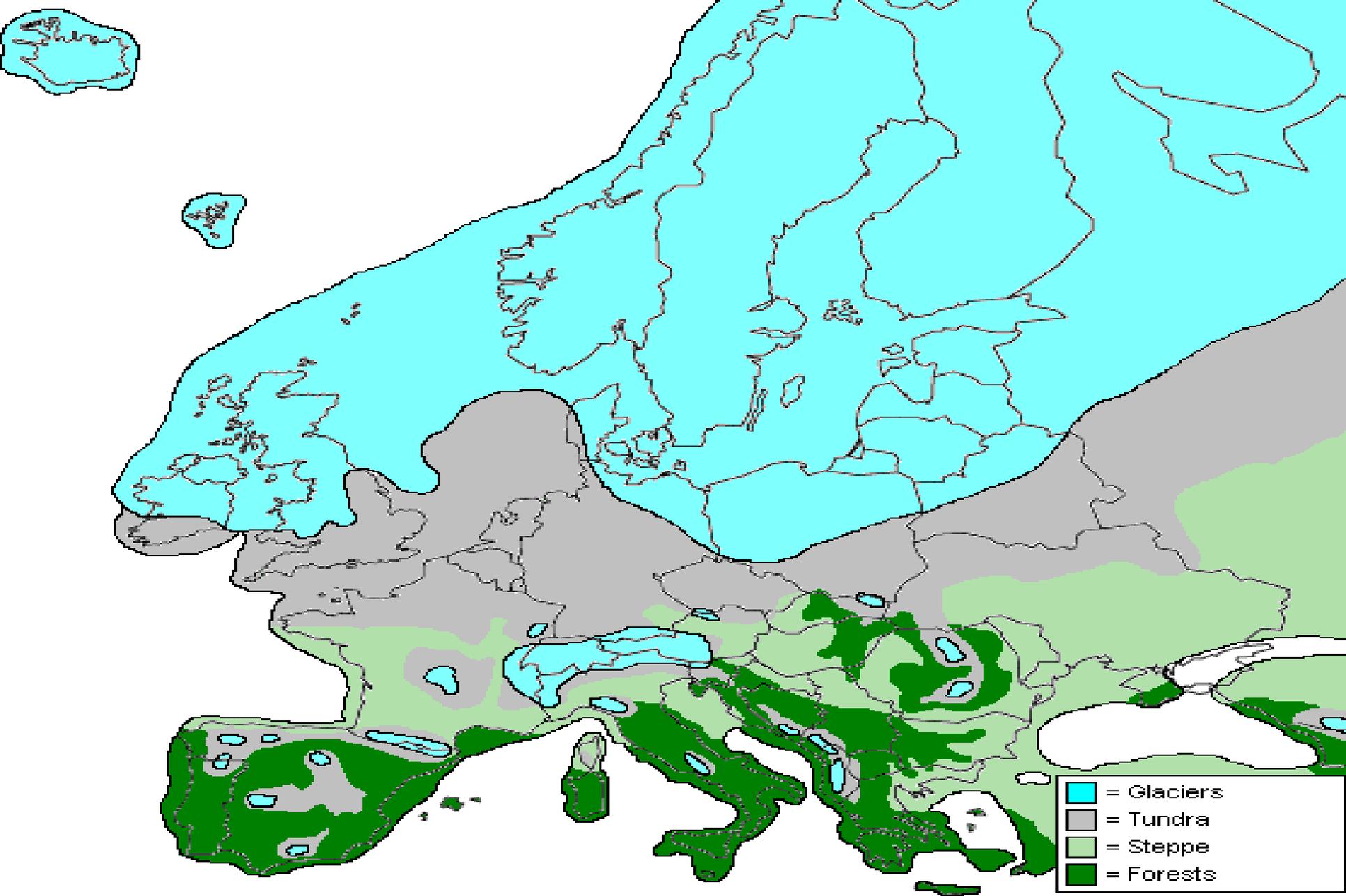


Howgill Fells post-planting



- All well and good – but do these ‘proposals’ come across as not going far enough?
- Do we need to plant many more trees to reinstate a more ‘natural’ landscape?

Europe during the last Ice Age (20.000 years ago)

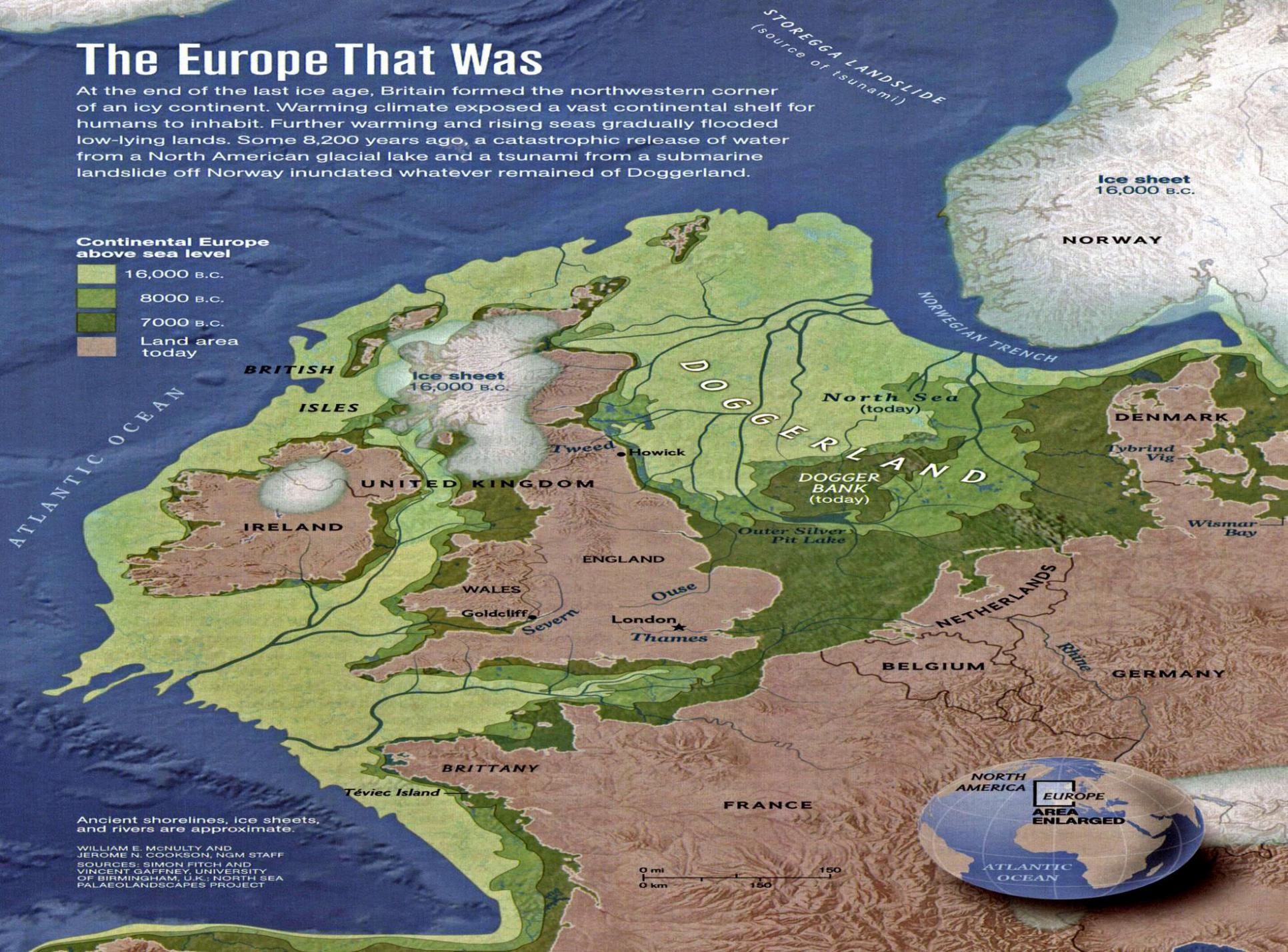


The Europe That Was

At the end of the last ice age, Britain formed the northwestern corner of an icy continent. Warming climate exposed a vast continental shelf for humans to inhabit. Further warming and rising seas gradually flooded low-lying lands. Some 8,200 years ago, a catastrophic release of water from a North American glacial lake and a tsunami from a submarine landslide off Norway inundated whatever remained of Doggerland.

Continental Europe above sea level

- 16,000 B.C.
- 8000 B.C.
- 7000 B.C.
- Land area today



Ancient shorelines, ice sheets, and rivers are approximate.

WILLIAM E. MCNULTY AND
JEROME N. COOKSON, NGM STAFF
SOURCES: SIMON FITCH AND
VINCENT GAFFNEY, UNIVERSITY
OF BIRMINGHAM, U.K.; NORTH SEA
PALAEOLANDSCAPES PROJECT

0 mi 150
0 km 150



Provinces:

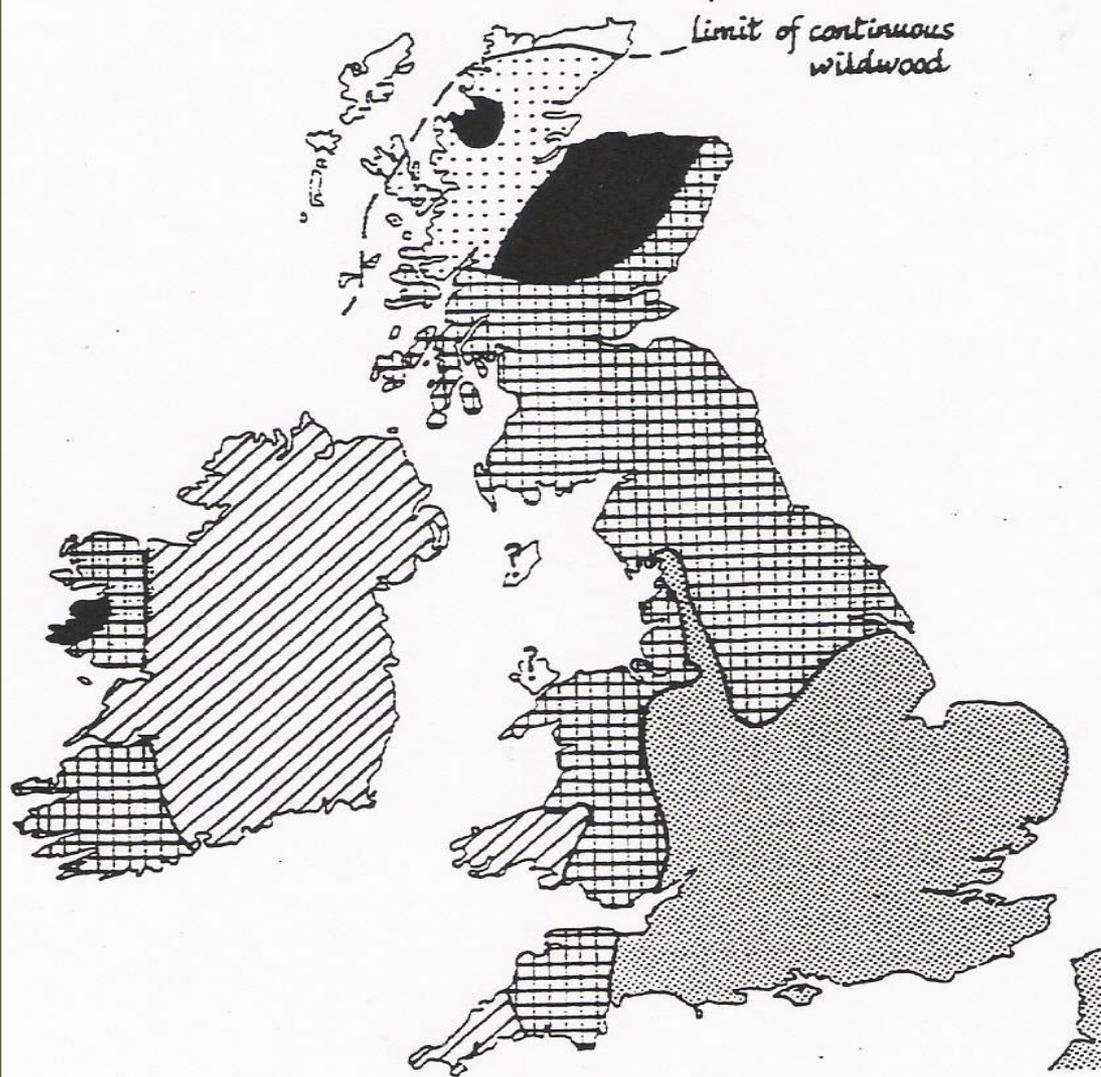
Birch

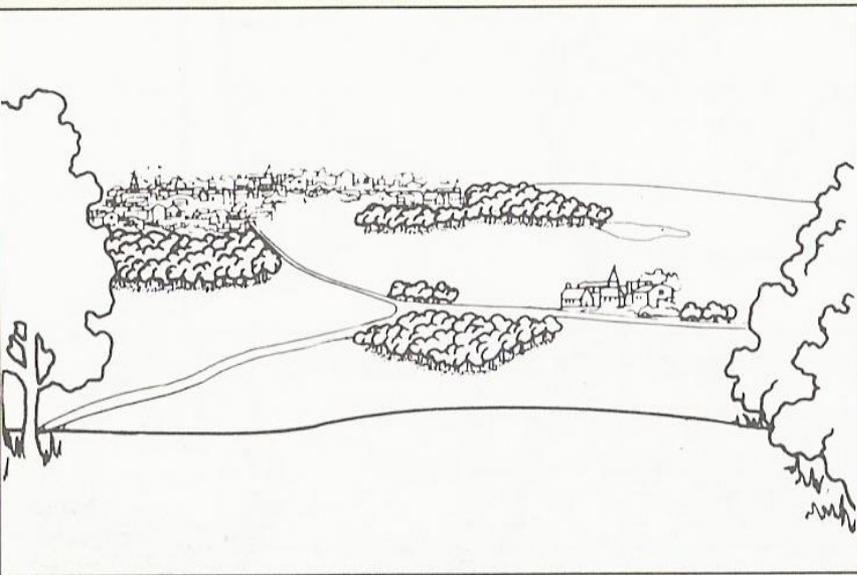
Pine

Oak-Hazel

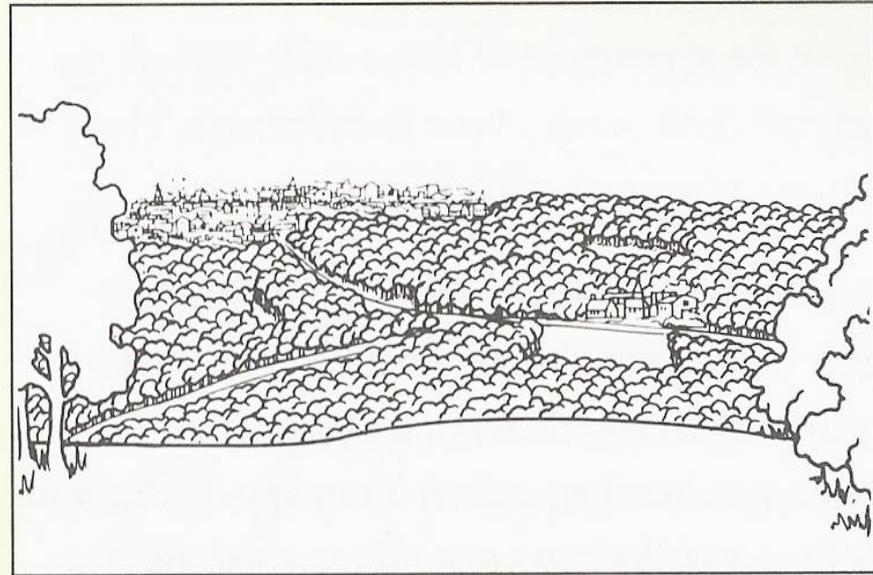
Hazel-Elm

Lime

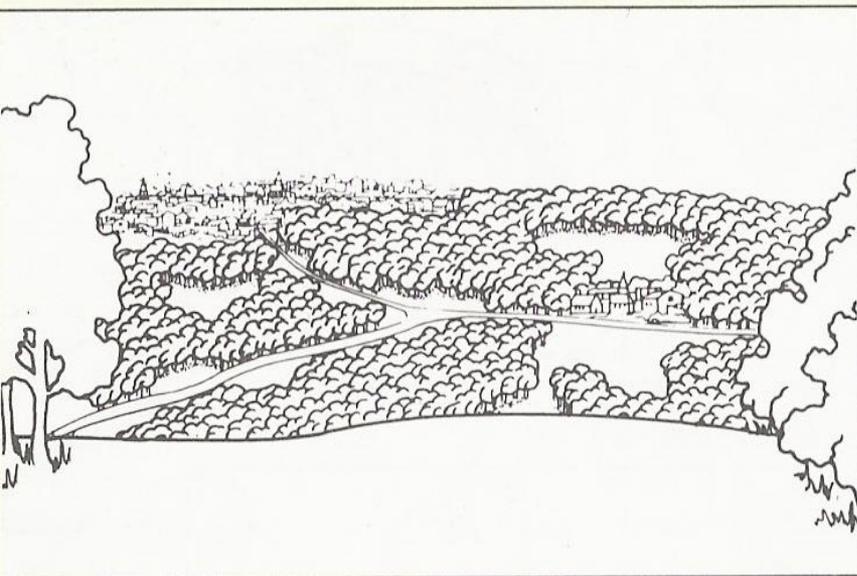




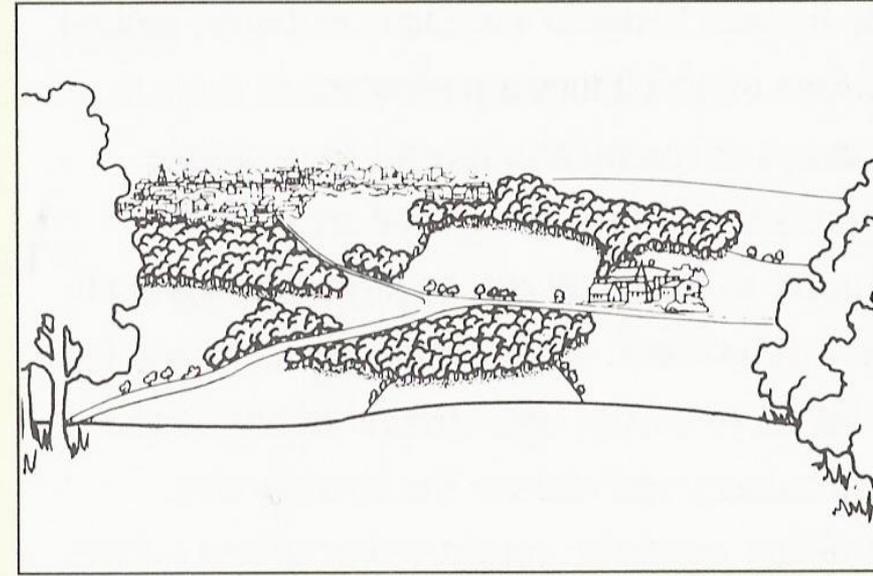
7a. A view from a high point over an area of urban fringe landscape. Rather less than one-third woodland produces an unbalanced composition difficult to unify in a landscape lacking structure.



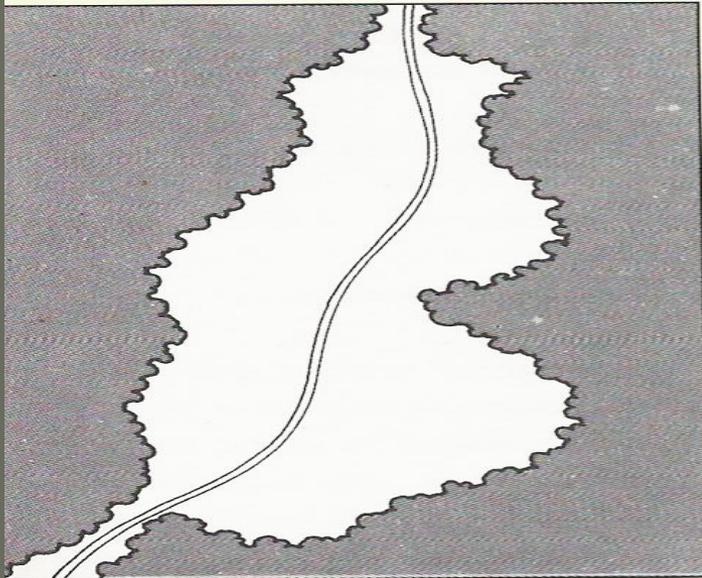
b. Rather more than two-thirds woodland also produces an unbalanced composition when open space is a valued component of the landscape.



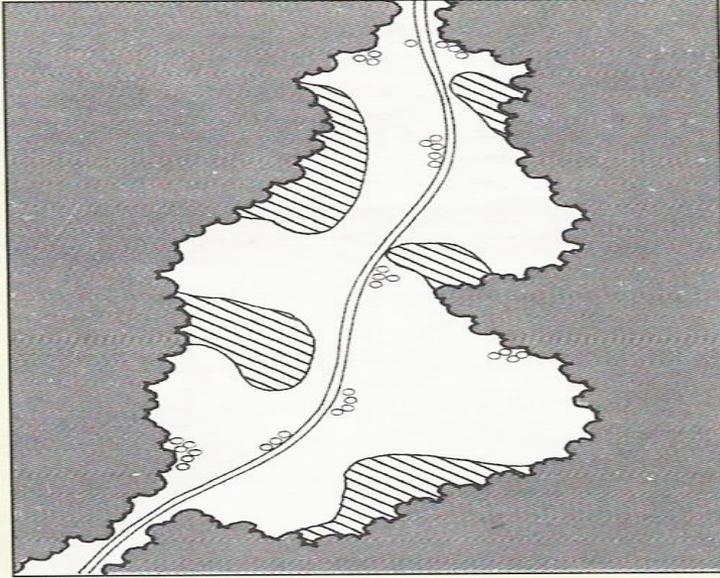
c. Around two-thirds woodland and one-third open space produces a more balanced composition, particularly when the two are interlocked..



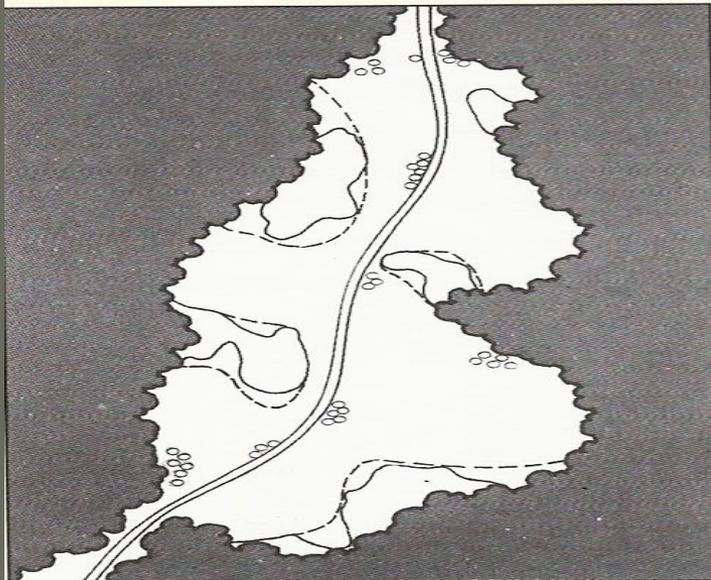
d. One third woodland is also balanced but needs to be tied into other patterns in the landscape in order to achieve unity.



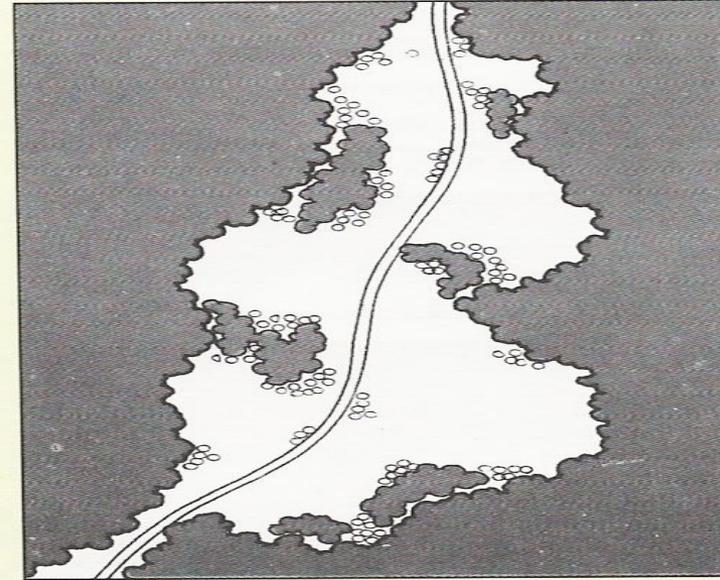
79a. Design for recreational purposes within a basic open space.



b. Sub-divide the open space by planting up to one third. This creates smaller areas where different groups of people can enjoy themselves without interfering with each other.

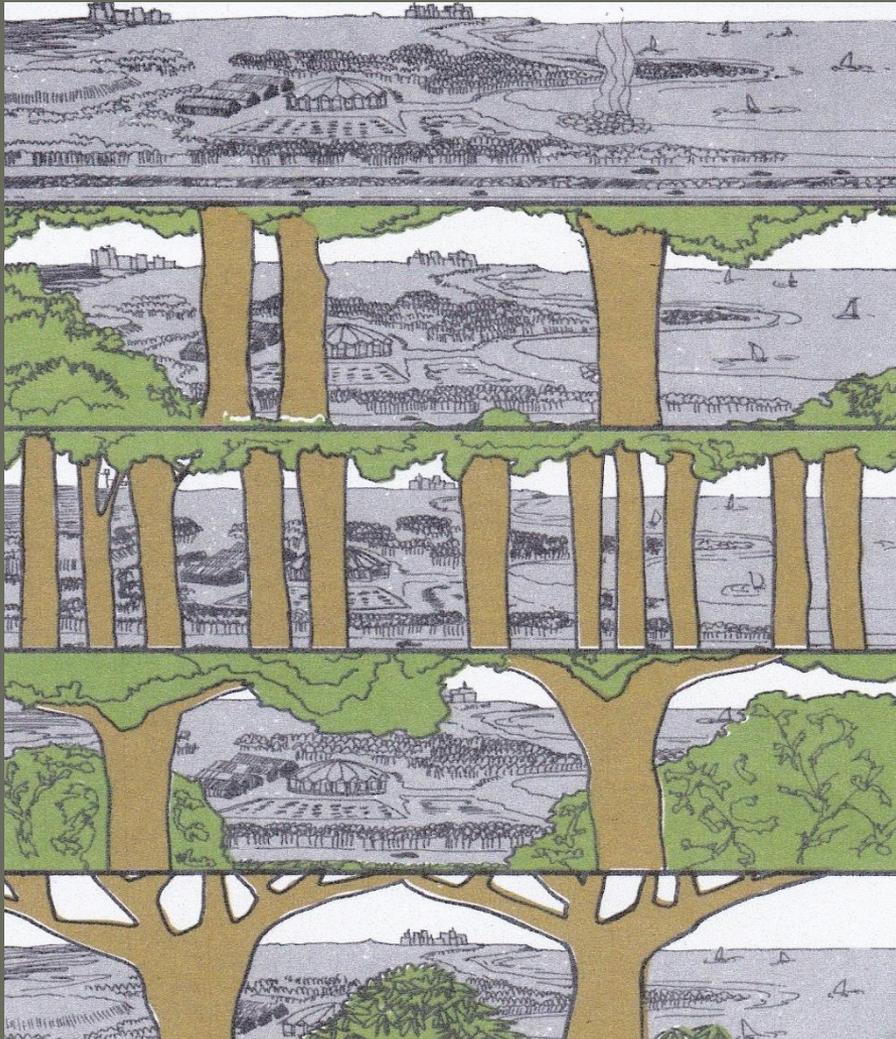


c. Of the areas to be planted fill about two-thirds with one species, to keep the unity of the design as simplicity of management.



d. Of the remaining third, plant with a variety of trees and shrubs and good edge development and visual effect.

Improve the experiential quality of some of the footpaths...

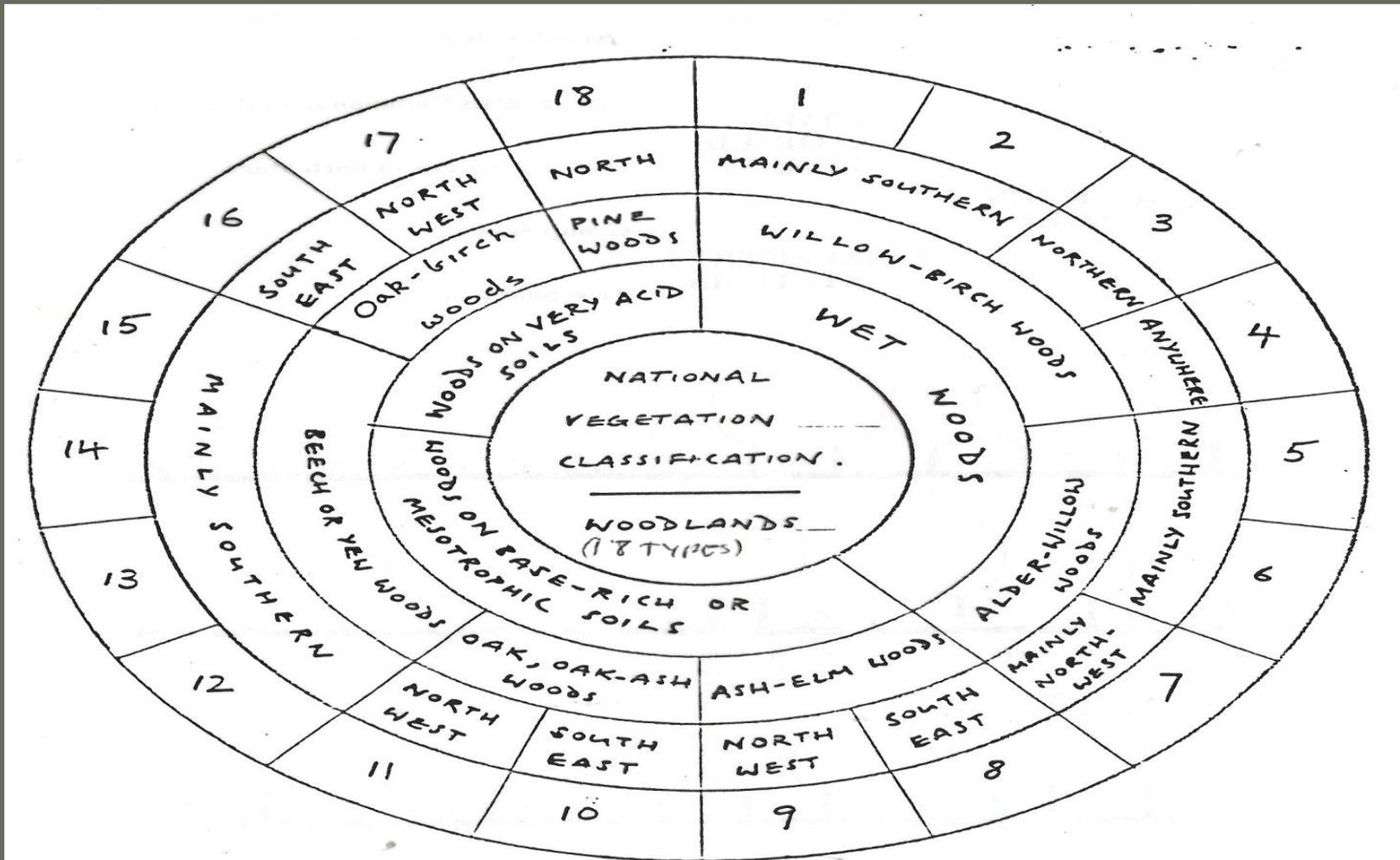


- **View direction** is saying with trees...
- This is what we want you to see completely!
- This is what we want you to see partially!
- This is what we don't want you to see at all!

But always respect the ghosts in the landscape...



Plant the Right Tree, bearing in mind that Climate Change and Pests & Diseases are the biggest issues we are going to have to confront...



NATIONAL VEGETATION CLASSIFICATION

- W1 : Sallow with marsh bedstraw
- W2 : Alder with common reed
- **W3 : Sallow with bottle sedge**
- W4 : Birch with purple moor grass
- W5 : Alder with tussock sedge
- W6 : Alder with stinging nettle
- **W7 : Alder/Ash with yellow pimpernel**
- W8 : Lowland Mixed Broadleaf [Ash/Field Maple]
- **W9 : Upland Mixed Broadleaf [Ash/Rowan]**
- W10 : Lowland Mixed Broadleaf [English Oak/Beech]
- **W11 : Oak / Oak-Ash**
- W12 : Beech / Ash [with dog's mercury]
- W13 : Yew
- W14 : Beech / Ash [with bramble]
- W15 : Beech / English Oak
- **W16 : Lowland Oak [sessile to north + west]**
- W17 : Upland Oak [sessile]
- W18 : Scots Pine [with heather]
- **W19 : Juniper with wood sorrel**

Native v. Alien?

- 1930's – Himmler 'Rules for the Design of the Landscape', which stipulated a 'close-to-nature' style and exclusive use of native plants...
- 'Archetype' – plants established before 1500
- 'Neophyte' – those established post 1500

Criteria for the acceptable use of non-indigenous species...

The introduced species must...

- be adapted to the site conditions + climate;
- be able to create humus;
- be ecologically integrated into the indigenous flora + fauna;
- be able to regenerate naturally;
- not introduce disease to other species;
- not be susceptible to any abnormal risk of being attacked by disease, and
- be able to be managed on an uneven-aged basis.

Possible Broadleaf Species

- *Acer macrophyllum* : Big Leaf Maple
- *Acer saccharinum* : Silver Maple
- *Alnus viridis* : Green Alder
- *Alnus incana* : Grey Alder
- *Alnus cordata* : Italian Alder
- *Alnus rubra* : Red Alder
- *Eucalyptus gunnii* : Cider Gum
- *Eucalyptus glaucescens* : Tingiringi Gum
- *Eucalyptus nitens* : Shining Gum
- *Juglans nigra* : Black Walnut
- *Liriodendron tulipifera* : Tulip Tree
- *Nothofagus pumilo* : Lenga
- *Nothofagus alpina* : Rauli
- *Nothofagus obliqua* : Roble
- *Paulownia tomentosa* : Princess Tree
- *Populus trichocarpa* : Hybrid Poplar
- *Populus deltoides* & Hybrids
- *Populus x wettsteinii* : Hybrid Aspen
- *Quercus rubra* : Red Oak

Possible Coniferous Species

- *Abies nordmanniana* : Caucasian Silver Fir
- *Abies alba* : European Silver Fir
- *Abies amabilis* : Pacific Silver Fir
- *Cedrus atlantica* : Atlantic Cedar
- *Cedrus Libani* : Cedar of Lebanon
- *Cryptomeria japonica* : Japanese Red Cedar
- *Metasequoia glyptostroboides* : Dawn Redwood
- *Pice glauca* x *Picea sitchensis* : Sitka and White Spruce Hybrid
- *Pices orientalis* : Oriental Spruce
- *Pices omorica* : Serbian Spruce
- *Pinus peuce* : Macedonian Pine
- *Pinus pinaster* : Maritime Pine
- *Pinus radiata* : Radiata Pine
- *Pinus monticola* : Western White Pine
- *Pinus strobus* : Weymouth Pine
- *Sequoia sempervirens* : Coast Redwood
- *Sequoiadendron giganteum* : Giant Redwood

The Plastic Tubes!





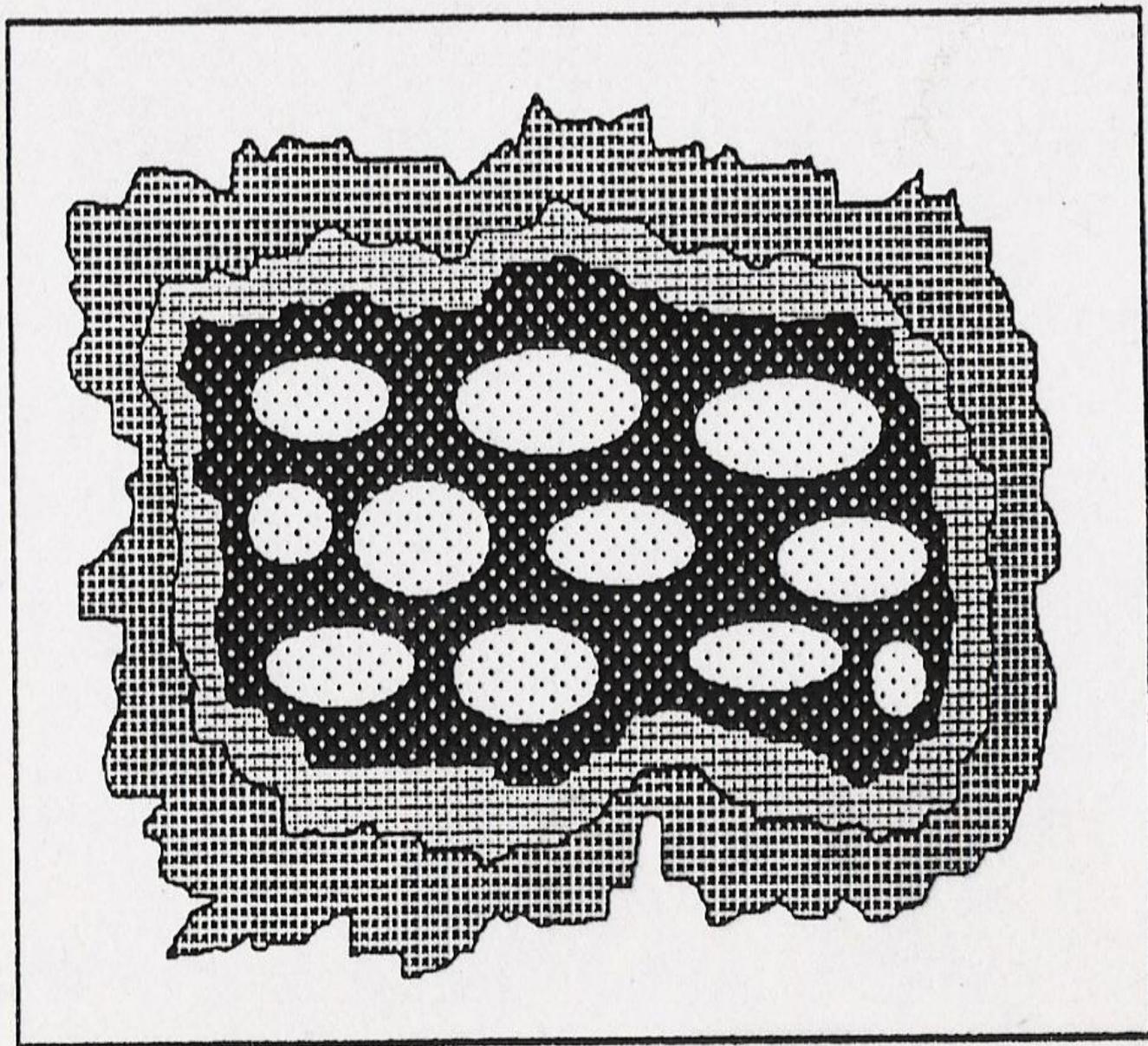
No Plastic Tubes





- We do now plant a variety of tree species in our new woodlands, but all too often this deploys '**inter-specific**' competition.
- We should be using '**intra-specific**' competition...

SCHEMATIC DIAGRAM



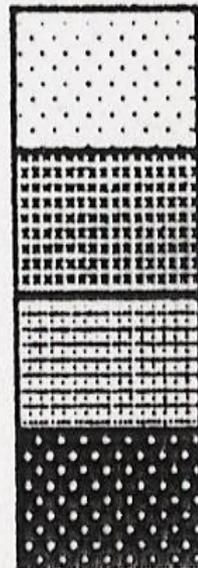
KEY

Climax Woodland

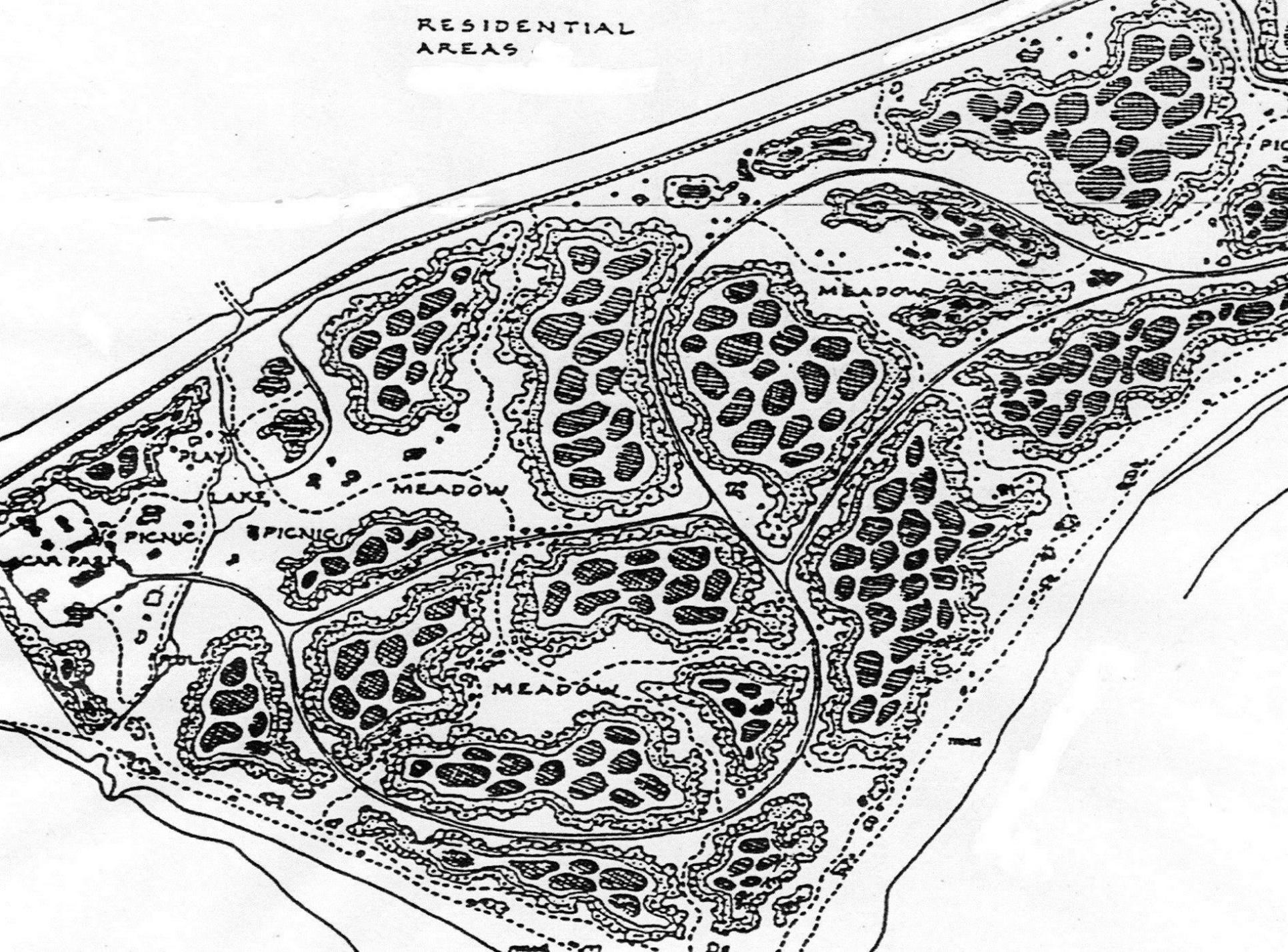
Woodland Edge

Light Demanding

Nurse Species



RESIDENTIAL
AREAS



Telford - The Forest City...



- TDC acknowledged that the trees were structural, and not just a cosmetic adjunct to development
- Over 6.5 million trees planted
- 138 tree species / cultivars used [YES!]
- 17% tree cover [England average 10.8%]
- No plastic tubes!
- Benign Neglect Management
- First town in the UK to be awarded Forestry Stewardship Council Certification (FSC)

New Woodland in and around Telford...

- Was based on intra-specific group planting;
- Could use 10-12 tree species, so that-
 - The treescapes were locally different and distinctive, thus helping to establish “place”;
 - They helped to enhance biodiversity;
 - They were much more visually stimulating;
 - They acted as an essential backdrop for people’s lives, and
 - They acted as a transition between the structural elements of the landscape and the detailed design of local spaces,

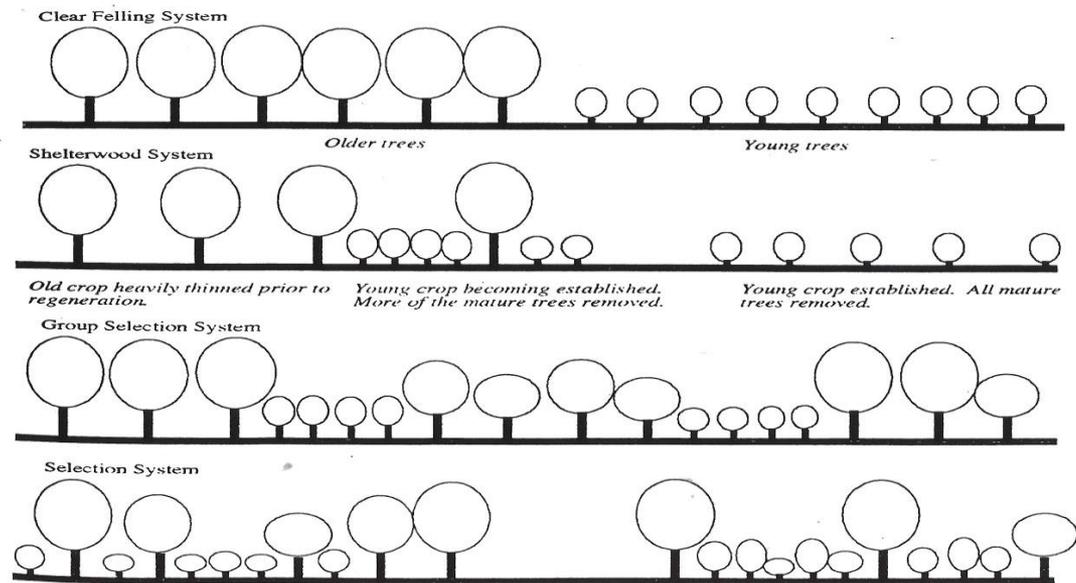


1975



1987

We must remember that management is the tool by which design never ends...



Continuous Cover Forestry

+

- Avoidance of sudden change in the landscape
- There are always some 'large' trees in the forest
- There are permanent woodland conditions
- Deer populations are more stable
- Areas of continuous cover can form a contrast with areas managed differently
- Smaller risk of fire
- Increased crop stability & less snow break

-

- No creation of temporary open spaces
- Limited opportunities for large mechanised harvesting
- Management needs to be regular, continuous and skilled
- As there are young trees present, effective deer control is essential
- An adequate network of tracks suitable for timber extraction and people...

Perhaps we should rely less on this sort of horsepower in The Dales..





...and more on this sort of
horsepower...



An interesting thought...

- **The best way of foretelling the future is to create it...**
- The choices and decisions we make today will resonate at least into the 22nd century and, if we get them wrong, we'll bequeath a bleak future to subsequent generations. We surely need to look ahead – and horizon scan – much further than most politicians and planners currently do.
- In particular, if our despoliation of nature causes mass extinctions - by neglect, by error, or by malign intention - then to quote E O Wilson, “it is the action that future generations will least forgive us for”.

Lord Rees, Astronomer Royal, September 2017.

A Green New Dales – what are the next goals?

Tree and Woodland planting must continue and increase, but also...

- Dreams will be planted, and
- The Third Poetry will be written...

PLANT DREAMS...

We are planting dreams.

It is best to plant dreams.

Some people think we are planting trees.

We are.

But mostly we are planting dreams.

Because if you plant dreams

Who knows what they will one day become.

Kevin Cadwallender

The Green New Dales is also writing the Third Poetry...

- **The First Poetry** is always written against the wind by sailors and farmers who sing with the wind in their teeth...

The Green New Dales is also writing the Third Poetry...

- The First Poetry is always written against the wind by sailors and farmers who sing with the wind in their teeth...
- The **Second Poetry** is written by scholars and wine drinkers who have learned to know a good thing...

The Green New Dales is writing the Third Poetry...

- The First Poetry is always written against the wind by sailors and farmers who sing with the wind in their teeth...
- The Second Poetry is written by scholars and wine drinkers who have learned to know a good thing...
- **The Third Poetry** is sometimes never written, but when it is, it's by those who have brought Nature and Art together into one thing...the New Green Dales!





QUIET

TREES AT WORK

Two champagne flutes filled with bubbly champagne, clinking together. The glasses are filled with a golden liquid and numerous small bubbles. The background is plain white.

**Saluté to the Green
New Dales!**

A photograph of a dense forest with tall, thin trees and a path leading through them. The ground is covered in fallen leaves and grass. The text "Thank you for listening..." is overlaid at the bottom in yellow.

Thank you for listening...