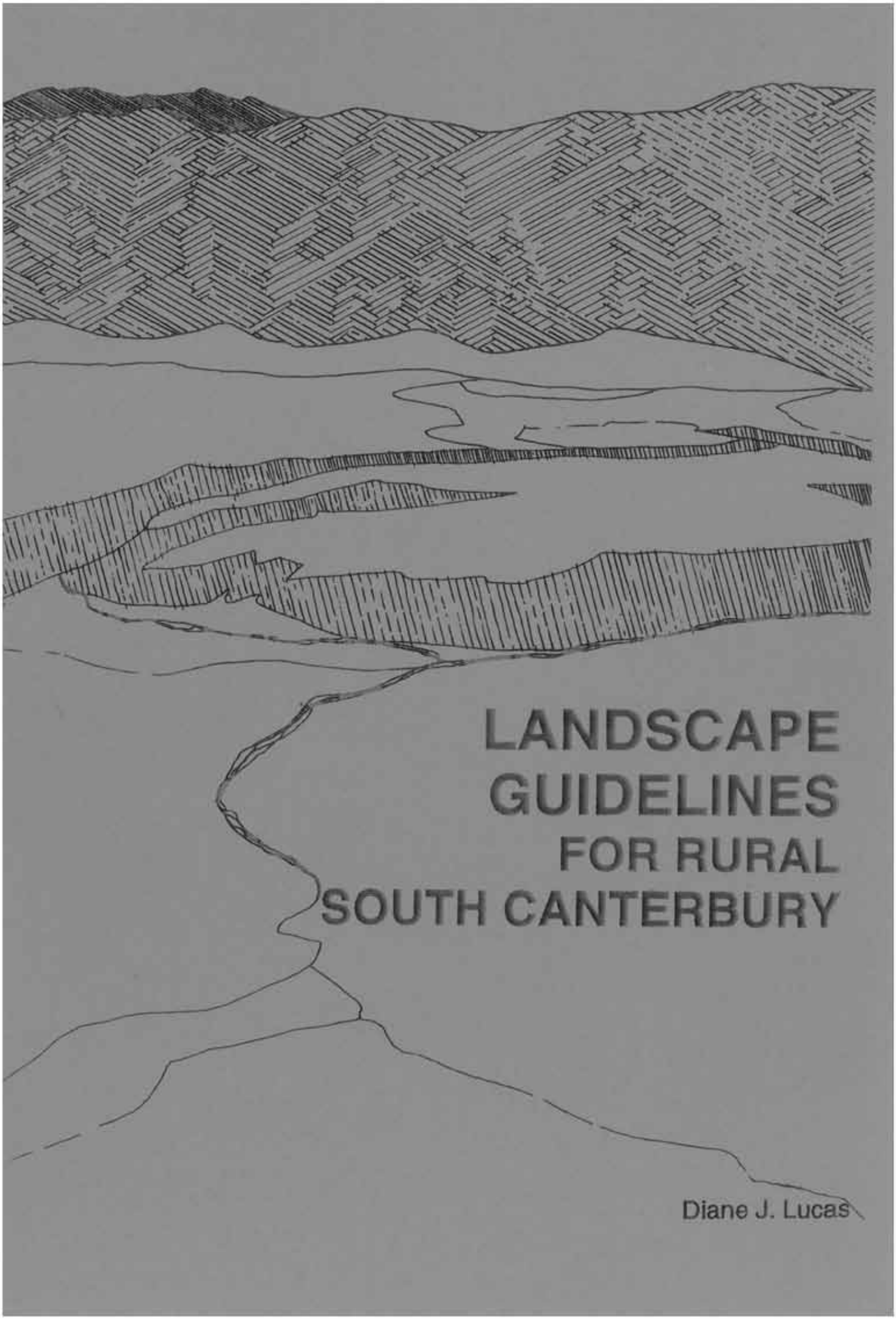

LANDSCAPE GUIDELINES FOR RURAL SOUTH CANTERBURY

Diane J. Lucas

This booklet is prepared for the people who are involved with rural land in South Canterbury. I hope it will go some way to fulfilling the requests that reach me for landscape design data. Obviously this can be only advice. No specific guidelines can ever be laid down, as the very essence of landscape design is the uniqueness of every site. Each individual site must be assessed, its physical nature studied to see how it can be developed to advantage in relation to the people involved and the desired site use. In an area of very special character, either natural or man-made, the application of general guidelines may not be desirable, as an entirely different approach may be needed to suit the particular circumstances.

It is hoped that this booklet will encourage people to stop and consider possible impacts before carrying out any development.

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GOOD LANDSCAPE IS GOOD LANDUSE

Considerable advice and assistance is made available to farmers for land protection and production. Some people are realising that just applying such advice alone does not necessarily produce a satisfying landscape. This is recognised in some countries and farmers are encouraged (financially) to employ landscape architects to ensure that land use patterns and developments actually enhance the visual landscape.

Many people are dissatisfied with development trends which are making lots of farmland look all much the same. In many areas of different landform the differences are being lost under the same patterns of harsh geometric shelterbelts and woodlots, ugly standardised farm buildings and urban style houses. They show little sensitivity to the natural landscape. Landform differences are being lost which leaves no real local character — the place could be anywhere. In fact the natural landscape seems to be ignored as an arbitrary landuse pattern is overlaid on it, and unsympathetic materials, alien plants and insensitive buildings are scattered about.

Superficial prettying-up with flashy buildings and plants does not solve this monotony as they are just as unsympathetic to the landscape. Superficial trimmings merely become meaningless and annoying focal points which do nothing for developing a meaningful local character.

Any development on the land should be considered not only in terms of profit, convenience or preference. The impact on the local landscape should also be considered. Development can actually enhance an area if sensitive to the natural and acquired qualities of that landscape.

Our land protection and production advisors cannot be expected to understand the landscape impacts of the works that they are involved in. In fact, the advice and encouragement that is provided is often detrimental to the landscape. Landscape diversity is removed in the name of Land Development. Monotony is encouraged with forestry and shelter incentive schemes that do little to encourage sensitivity to the local landscape. But there is some room for manipulation, so that these schemes could be incorporated more sensitively into the landscape.

Farm development plans that co-ordinate land protection and production goals with aims for a visually and psychologically satisfying landscape could be of considerable value.

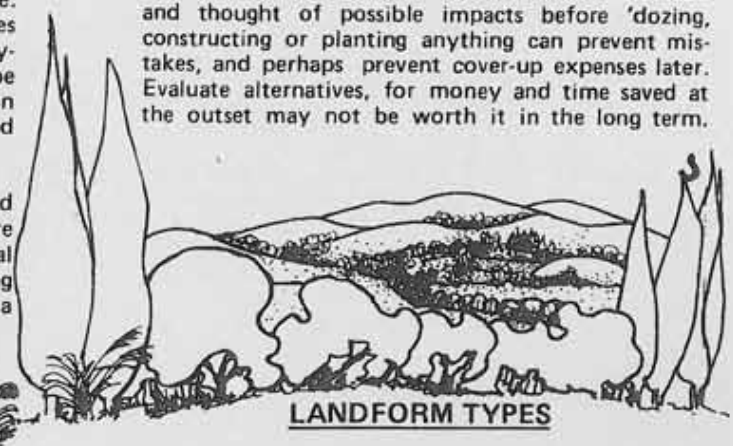
BASIC LANDSCAPE IS THE DESIGN BASE

The natural landscape should form the basis of design for all farm development. The patterns, shapes, colours and textures of the landscape should form a basis for the:—

1. siting and design of buildings. The size, shape materials and colours of any and every structure (houses, sheds, silos, tanks, etc.) should all relate to the landscape and to each other.
2. siting of any planting. The shapes, colours and textures of all plant masses (forestry, shelter, tree crop, amenity, river control, etc.) should be part of a total network of cover. No plant individual or isolated.
3. siting of roading. Tracks, drives, lanes should all relate to natural boundaries and fit into the form of the land in flowing curves to look as logical and insignificant as possible.
4. siting and design of fences and walls. Where possible lines flowing with the land; materials and colours that occur there naturally or blend in; simple designs (not urban styles).

All these elements should be part of a strong landscape framework. They should look like they belong and contribute to creating a more pleasant place to live, work and visit.

Nothing, not a tree, shrub, shed or silo, can ever be viewed alone. Every item placed in the landscape must be considered as part of the overall scene. Care and thought of possible impacts before 'dozing, constructing or planting anything can prevent mistakes, and perhaps prevent cover-up expenses later. Evaluate alternatives, for money and time saved at the outset may not be worth it in the long term.



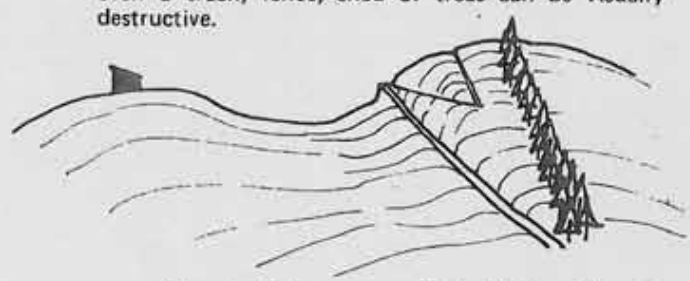
LANDFORM TYPES

South Canterbury has a variety of landforms which are broadly classed as mountains, downs and plains. These contrasting landscape types and the considerable variation within each type allows great potential diversity in rural landscape development.

A. HILL COUNTRY

The steep rugged mountains form the backdrop to the plains and downs. Some rise abruptly from the valleys below, others have a fringe of gentle slopes. **The steeper a slope is, the more visually important it becomes.** Not only soil and water protection but also visual significance require that hill country be developed and managed with great care.

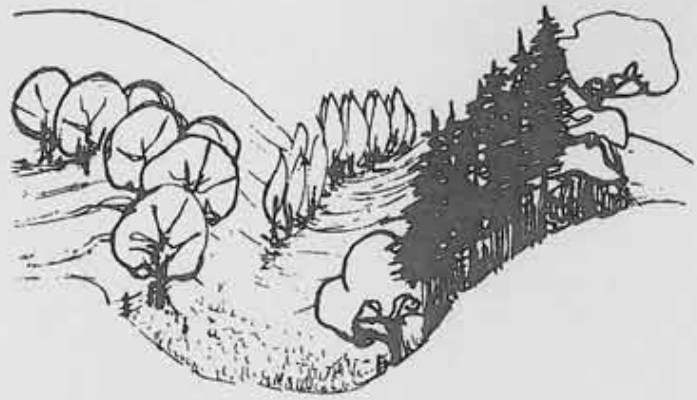
Although landuse alternatives are limited, even a track, fence, shed or trees can be visually destructive.



The visual importance of the skyline silhouette of the natural landform should always be considered in hill country development. Generally **development on a skyline needs to be carefully avoided,** particularly on skylines seen from main viewpoints such as houses, drives, roads and recreation places. So many landscapes are ruined by thoughtless placement of woodlots, shelterbelts, water tanks, sheds and houses on skylines. A small change in location to a site below the brow would often still be functional and could prevent visual destruction.

Hill country is usually treated as uniform for management, but with a great variety of climatic, soil, slope, and physical conditions a much more complex management system may be possible. A variety of landform units could have pockets of arable land, woodlots, trees, crops, etc. depending on physical conditions and microclimate. **The landuse variations could together create a rich matrix of masses, spaces and transitions that is closely associated with the natural landform.** The unity of the matrix is crucial to its visual success, as bitsy development of too small scale could be disastrous.

Crude development on hillsides that is not related to the landform pattern and disrupts the skyline silhouette can destroy the beauty of the landscape not only within that property, but often for many miles around. Such thoughtlessness seems rather selfish.



B. DOWNLANDS

The extensive South Canterbury Downlands vary greatly from gentle slopes and shallow valleys, to rolling surfaces, deeply dissected, with prominent escarpments. Such a landscape has considerable visual potential, with the strong landform framework linking the many separate enclosed units. Also, as well as the climatic progression from the coastal downlands inland, varied topography causes many local deviations, with dry north-west slopes and wetter south-west slopes. **Changing the landuse where there is a change in slope, moisture or aspect, and using the natural boundaries, could do much to create a rich and beautiful landscape.**

Downlands landform, soils and microclimate offer considerable scope in landuse diversity. A diverse landscape that is a logical response to the physical nature and patterns of the land will be a very rich and satisfying landscape.

The scale and character of the visual landscape is well suited to small, hardwood woodlots linked to shelter systems, spaced trees and riparian vegetation.

As many of the Downland valleys form enclosed and separate landscape units, a unified approach to development within any one unit would be expected to produce the most rewarding landscape. Often legal boundaries don't relate to the natural boundaries. But frequently it is desirable to continue a landuse from one property to the next to best fit the natural landscape patterns. **A general development plan worked out between the adjoining farmers in a landscape unit, for example a plan for patterns of woodlots and shelter, could be of mutual practical benefit to the farmers, and of visual benefit to the whole community.** Development that has an impact on the landscape could be worked out in relation to the landscape and the needs and plans of adjoining properties. Even building forms and colours could be considered in this way, so that the adjacent properties complement one another rather than visually ignoring or competing with each other. Thus a more coherent and satisfying landscape would develop which would be to everyone's benefit.

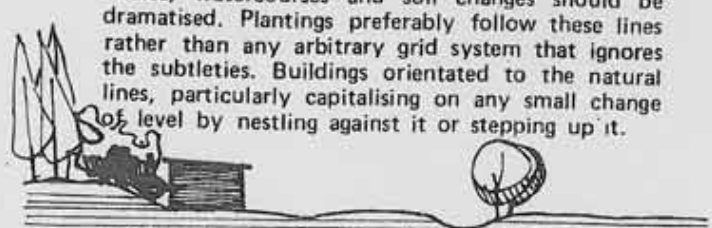
C. PLAINS

The plains areas of South Canterbury, being the southern portion of the Canterbury Plain and the northern part of the Waitaki Plain, show surprising variety in physical properties and thus a potential diversity in the landscape. The plains consist of river fans, terraces, meadow lands and swamps. The soil quality should be reflected in the intensity of land use, and thus in the division of the land for shelter, etc.

The landscape of intensive landuse with better soils, irrigation or microclimate preferably looks dramatically different from more extensively used land. Where more intensive landuse is possible, the shelter network, closer buildings, tree cropping, etc, can form an intimate, more human-scale, local landscape with smaller spaces, soft tree colours and forms.

But as any area of the plains is part of a vast landscape, co-ordination of an extensive planting network is essential, with different buildings and landuses nestled into this network. Isolated buildings and small scale plantings are lost in this extensive landscape.

Whether developing an intensive or more extensive landuse pattern, the subtle natural features of the plains should be used as the basis of the layout. Small terraces, swales, watercourses and soil changes should be dramatised. Plantings preferably follow these lines rather than any arbitrary grid system that ignores the subtleties. Buildings orientated to the natural lines, particularly capitalising on any small change of level by nestling against it or stepping up it.



Grid patterns of roads, boundaries and fences do not have to form the basis, instead emphasise the natural changes so that the grid system becomes insignificant. The hill or mountain landscape beyond the plains can be brought in to become part of the local landscape, with strategic siting of roads, buildings and plantings. This concept of "borrowed scenery" along with careful highlighting of immediate small landscape changes can create a satisfying and informal landscape that gives relief to the open plains.

LANDSCAPE GUIDELINES
No.1 PLANTING

Vegetation is the chief means of altering a rural landscape. Thus it is important that all planting in an area is planned with thought for creating a locally distinctive landscape that is appropriate to its use and its inherent visual character.

Farm planting, including purely functional woodlots, shelter belts and erosion control plantings, also on inaccessible pieces of land around farm buildings, spaced shade trees, wildlife habitat, orchards etc., can be tied together in a matrix pattern. As no individual planting (such as a shelter belt) is viewed entirely alone, then it cannot be considered alone. Every planting should be planned as part of the total landscape. Every planting forming part of a planned pattern of open and wooded landscape – the shape of the plantings and openings closely related to the pattern of the underlying landform. The sizes of the openings depend primarily on the intensity of the landuse (the degree of shelter required in particular).

We suffer from past mistakes in that the land has been totally cleared, followed by a formal planting system being overlaid to make the great spaces useable – then planting up the unuseable land that should never have been cleared ! We now need to recreate a system of productive open spaces within a (productive) wooded landscape, not strips and squares of plantings scattered over the barren landscape.

Preferably the essential qualities of our rural landscapes are the natural and unrefined: landscapes of subtleties. Large forest stands neatly squared off at the edges and parallel belts of dark pines, all regardless of contour, do not create a subtle landscape.

The network of vegetation based on landform patterns can be used to visually absorb various developments in the rural landscape. Houses and various farm buildings, silo groups and haybarns can be nestled into a planting network so that they become an acceptable part of the landscape – not a functional intrusion that we must put up with, as is commonly seen.

Trees are not necessarily desirable in a landscape. A tree is not necessarily beautiful. There are spaces (large and small) that would be destroyed if trees, or even a single tree was planted within any of them. The meaning of the spaces in relation to the particular landscape must be carefully assessed. Often an enclosed space is destroyed when a well meaning person 'develops' it by adding trees within the space. Or a vista with a simple foreground to a magnificent view is destroyed when fussy planting is added.

Sometimes any tree or trees of the wrong shape or colour are much much worse than no trees at all. A tree is not just a tree seen by itself. It is part of a landscape, from which it can detract.

Before planting any tree or tree mass, consider the relationship with the surroundings. Generally a tree should not be a prominent feature in complete contrast to the surrounds. The colour, shape and texture should be in sympathy with the landform and with other vegetation. Often it is actually the amenity plantings, the plantings intended for beauty, that destroy the amenity of the general landscape. Often garish and of suburban garden scale – these trees are more ugly than beautiful when used out in the countryside.

A high quality landscape is not developed from choosing an assortment of tree species for "variety" and scattering them at random for "diversity".

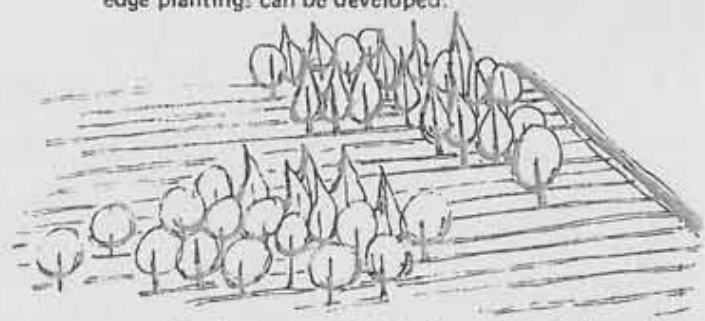
Formal planting arrangements are often not successful because of individual failures and growth rate variations, and as they frequently conflict with the landform patterns. Informal plantings are more likely to complement the landscape. But many farm plantings, especially in driveways and home paddocks, are not very successful as there is too great a variety of trees, spaced too far apart, with little attempt to create satisfying masses and spaces.

Because of their small size, shrubs and small ornamental trees look too fussy for the rural landscape, except when massed together or in an enclosed garden. Non-green foliage makes frustrating focal points that disturb the restful atmosphere wanted, so that it is wise not to use any – no golden, purple or variegated forms. Subtle contrasts are generally much more satisfying.

Differences in climate should be expressed in a different type of vegetation. Plants growing out of their climatic range that must be invisibily nurtured reveal little of the nature of the local landscape. But some irrigation systems could effectively express the contrast between "natural" and irrigated land. Use of border dyke irrigation should not change just the summer grass colour and impose a geometric land form pattern.

As with a pocket of good soil in a poor area, there should be an obvious intensification of landuse expressed in smaller spaces in a lush tree framework.

Especially on border-dyked grazing land, the irrigation patterns can be vertically expressed with large groups of timber or cropping trees spaced over the borders. Trees not too far apart so that they can read as a mass, not as individuals. Use only 1–3 tree crop or timber species, not an ornamental mixture. Spray irrigation does not encourage such interesting plantings and spaces as usually only regular edge plantings can be developed.



Maximum use should be made of the native vegetation which would occur naturally in an particular area. The great range that exists (or existed) in South Canterbury allows for all types of farms planting to help recreate good habitat and local character, and mixed with special purpose exotics such as short rotation timber or fast high shelter trees.

On the Plains, when shade and moisture are introduced, a greater range of species is possible than existed on open exposed areas.

For adaptive and genetic reasons plants should be grown from seed and cuttings taken from locally occurring vegetation, rather than introduced from other areas. No "coloured" forms should be used.

Priority could be given to planting relatively unproductive land within or between farms such as banks, around buildings, verges and waterways to develop a network of cover.

WOODLOTS

Main factors to consider in the siting and designing of woodlots are:–

SHAPE: Natural boundaries should be used. Not geometric shapes merely to conform to a boundary or fenceline. Shapes of planting phases must also be considered because of the patterns created with differing aged stands, and later felling patterns.

SPECIES VARIATION: Changes in species to emphasise landform, relate to variations in soil and microclimate, and to ensure a satisfactory network remains if a main crop is clear-felled. Thus the species-change boundaries also need to be informal, natural lines, even merged into one another so there is some mixing of species.

SKYLINE: Care is needed to avoid having forestry encroaching on skylines. Preferably short-rotation, clear-fell types of forestry are not established over any ridge or hill top. Careful use of hardwoods for long term selective logging could be used if any planting is to be carried out on skylines, as of softer form and colour, and avoid the devastating felling effects.

FINANCES: The Forestry Encouragement Grant scheme does not prevent the application of these principles to try and make the forestry more visually acceptable in the landscape. Although a minimum area of forestry is required, this can be divided into several blocks; the only limitation on varying the shapes is a minimum of five rows deep; a limited range of species variation is permitted. Thus there is scope for variable forest shapes and mixtures to fit in with the particular landscape. The landowner can carry out any further "fine tuning" that is needed such as pockets of species not covered by the grant, or wider spaced trees to soften the transition to pasture.

NATIVE VEGETATION: Any patches of remnant or regenerating bush should be carefully protected. Even protect small patches of manuka, kanuka, matipos etc., as forest trees will come in eventually. Further native bush areas should be encouraged to develop, particularly in steep or inaccessible areas. Each area of bush helps to redevelop some local character and form a network of wildlife habitat. Woodlots of native tree species could be established as an investment for the future. Rimu could be planted under scrub cover. Totara, beech and kahikatea in more open but sheltered sites. These could be of considerable interest. Some 'weed' cover such as gorse can create a valuable nurse canopy for the natural and artificial establishment of a native stand.

MICRO CLIMATE: Forest edges running at an angle to prevailing winds actually speed up the winds. But sheltered pockets can be created with a convoluted edge. Informal tongues of (permeable) tree cover extending out into the pasture across the path of the wind could break down the wind and create areas of favourable microclimate.

The microclimate value of forest edges can readily be seen in the rich variety of vegetation on the fringe of natural bush. Use this concept in forestry plantings by incorporating more high quality crops in such sites, possibily even a multi-tier system.

Woodlot design can also manipulate frost patterns. Dense woodlots can pond cold air. To prevent ponding have openings, wide spaced or deciduous trees along the natural drainage system through which the cold air can drain.

Most hardwoods require fertile and sheltered sites. The fact that Radiata Pine is productive on some extremely difficult sites should not automatically relegate all forestry blocks to the most inhospitable land. Small stands of quality timber on good sites could be of considerable ecological, visual and monetary value. Deciduous trees open grown on good sites will improve pasture production.

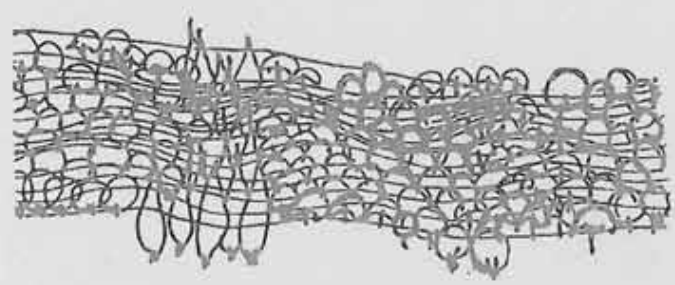
WOODLOT SITES

A. ESCARPMENTS & TERRACE FACES

For stability and soil conservation on steep escarpments it is often preferable that there is more cover than just pasture. Planting the line of a terrace face or escarpment can help a lot in forming the basis for a logical landscape pattern. The planting on the face becomes a spine from which shelter belts etc. extend.

Although many faces appear uniform, there are usually small differences in slope, aspect, moisture and stability which could be emphasised by change in species.

Not a blanket cover of conifers which would block out such subtle changes. But the different species must be mixed & grouped with care for the visual effects, & also to avoid management and felling problems. **Arbitrary variations of species, such as alternating rows or blocks, should never be used as these visually disrupt and dominate the natural pattern of the landform.**

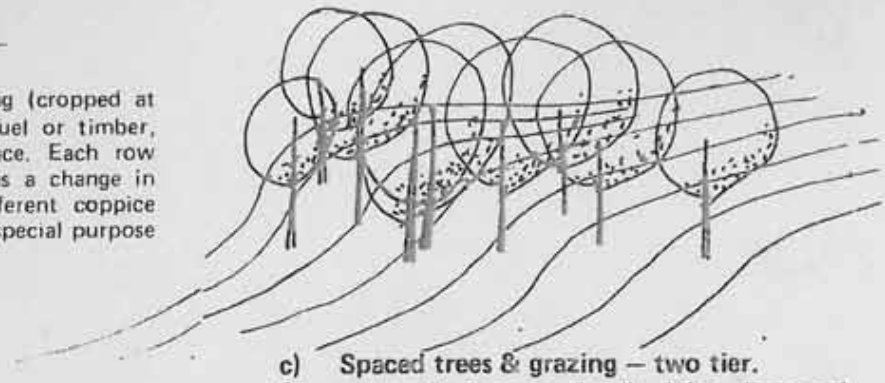


The woodlot could consist of a pure stand of one species (all a conifer; or a eucalypt) or else a formal mix of 2 species of similar soft form and colour (such as Blackwoods with several rows of a eucalypt in between) along the faces, and clumps of another species along the base where conditions change. The lower portion probably has deep moist alluvial soils, allowing a range of species to be grown, with extremely shade tolerant species if below conifers on a south facing slope. Along the upper edge plant an informal shaped fringe above the main woodlot. If in rain-shadow once the woodlot develops, drought tolerant species will be necessary for the upper fringe. The top-edge trees must be wind-firm to remain when the crop below is felled. Softer shapes and colours are preferred (eg. smaller eucalypts with a wattle understorey).

Alternative planting suggestions:–

a) Rotational coppice system.

Rows of trees of value for coppicing (cropped at ground level, then resprouted) for fuel or timber, following the contour along the face. Each row harvested in rotation. Where there is a change in angle or condition of slope, a different coppice species could be used, or clumps of special purpose trees for interest and variety.



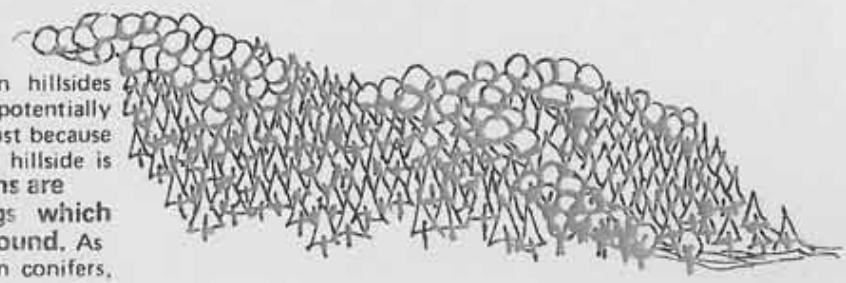
b) Selective management systems.

Rather than clear-felling, some timber trees can be selectively managed to ensure a continuous tree cover. Careful management is essential as success depends on timing and degree of thinning to ensure stability. Eucalypts and Blackwood managed in this way would be a visual asset. Macrocarpa and Douglas Fir are also viable.

c) Spaced trees & grazing – two tier.

On small gentle faces to visually define them, and larger faces that are not too steep or unstable, establish trees at wide spacings and graze under them. Strict stock management is essential, as any lapse can be rapid and disastrous. On moist sites with deeper soils deciduous species (eg. poplars, oak, ash or black walnut) may be suitable. Selectively managed, or some species could be pollarded (cropped above browsing height and resprouted) for timber.

B. HILLSIDES



Forestry blocks are established on hillsides which have limited grazing potential, are potentially unstable, prone to weed infestation, or just because a farmer wants to plant a block and the hillside is accessible. **Considerable visual problems are caused by many hillside plantings which affect landscape views for miles around.** As most hillside blocks are of dark evergreen conifers, they contrast very sharply with surrounding grazing land, whether native or developed pasture. Because of the slope of a hillside it is a very prominent element in the landscape, especially if facing a wide valley, downlands or plains. Thus the shape of any forestry block on a hillside is critical to the visual quality of the landscape it overlooks. As well as forestry shapes, the sizes and shapes of spaces created must also be considered. The natural rounded shapes of the hill must be allowed to remain the dominant visual elements. **Existing fencelines and property boundaries should never be accepted as the edges of a forestry block without first assessing whether they will form a sympathetic forest edge in the landscape.**

Alternative planting suggestions:–

a) Upper Boundary not as a horizontal line across the slope on a particular contour, property boundary, roadline or fence. The upper boundary should feather up the slope as a natural tree line does in relation to aspect. Grassland extending down the ridges, and forestry extending up in the valleys. Even gentle undulations can be emphasised in this way to make a more sensitive upper forest boundary. Trees venture toward the skyline only in the valleys. The extent of these "tongues" of planting will depend on the scale of the ridges and valleys as well as the size of the forestry block. But the "tongues" must be large enough to read as a natural progression when viewed from the surrounding landscape. They should not look like drunken wiggles around an intended formal boundary!

b) Species-change transitions are preferably shaped as subtle drifts, never stripes or blocks. The transition must be carefully designed so there is not a stark contrast either within the standing forest, nor when one species is felled. Overlap their boundaries so that they gradually intermingle up and down the edges of the change. The edge that remains when one species is felled must not only be windfirm, but also should not look like a carved-up forest. Extensive thinning and careful management of the future edge will be needed some years before felling.

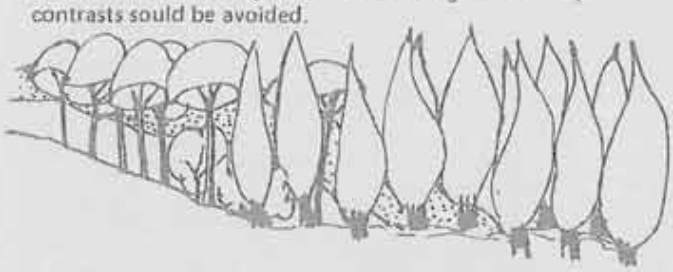
c) Incorporating hardwoods (eg. eucalypts, Black woods) or deciduous conifers (larch) along with a main crop of evergreen conifers making the block fit in better, and more of the hill can be afforested in a visually acceptable way. **To accentuate the topography these softer-looking trees can be taken to the skyline, particularly at lower points, and feathered down into the main crop.** Possibly the softer species kept to the more favourable sites in the valleys, and as the main crop on the ridges. Thus when the main crop is clear felled the skyline-valley planting of "softer" trees will remain as a framework. Preferably they would be selectively managed to retain this framework permanently.

d) Planting the upper margin trees at gradually wider spacings and thin heavily to **create a transition from forest to grassland.** Ensure the upper forest area is well grassed so that the forest grassland transition is visible and not masked by dark weed growth. Controlled grazing of the margin will be necessary, fenced off from the grassland above.

b) Valleys which are wind funnels will require planting across them. Open form and soft-coloured trees are essential so that the continuity of the valley landform is not broken (eg. Poplar, Ribbonwood).

Parallel belts are acceptable if they link in to other planting in the valley centre or at the sides. Possibly join the shelterbelts into planting extending along a waterway, linking all belts together. Also link the belts into woodlots and homestead plantings on the valley sides.

If the belts are required to extend up the sides of the valley, there should be a change in species to relate to the change in landform, but of similar soft shape (eg. poplars on the floor and eucalypts or acacias on the sides). Soften the change from one to the other with group plantings as small woodlot, two-tier or corner copses. Sudden changes and sharp contrasts sould be avoided.



Only add lower, denser shelter to the high permeable trees across the valley floor if absolutely necessary, such as for critical southerly stock shelter sites. Any density immediately cuts the visual landscape flow and could pond cold air. Soft form and colour in the lower storey is essential —never conifers. Preferably use a local native shrub mix (eg. black matipo, broadleaf, fivefinger, toetoe, flax, korokio, Olearia spp.) Small native trees could also be grouped within the belt, particularly near the waterway (eg. kowhai, ribbonwood, lacebark, cabbage tree).

c) More exposed sites will not effectively support deciduous hardwoods without irrigation. Rounded tree-forms are still preferable. On some sites eucalypts will give good high shelter. Plant a single row of eucalypts, and add an understorey of wattles or hardy, local, native shrubs (just one, or several species mixed and grouped informally). Or plant two rows of eucalypts of a coppicing type (or several coppicing types mixed in large groups) and coppice alternating rows periodically so that there is always some lower shelter.

Try to tie these belts into the landscape framework by following the natural shapes and lines of the land. To give interest and a better 'fit' with the landscape, at certain points where the landform changes, where paddock use allows, on a steeper part or in an awkward corner:—

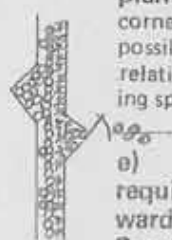
1. Widen the belt, plant groups of eucalypts, and possibly other hardwoods (Blackwood, oak, poplar). Maybe extend some of the same trees out into the paddocks to soften the edge of the belt.
2. Extend the native understorey planting as shrub cover. Major tree species could also be added (eg. totara and beech) amongst the cover.

d) Site conditions may require conifers as the only viable choice for shelter. On such sites it is better to grow only a limited range of species that will grow well, than try alternative species which struggle and become unsightly.

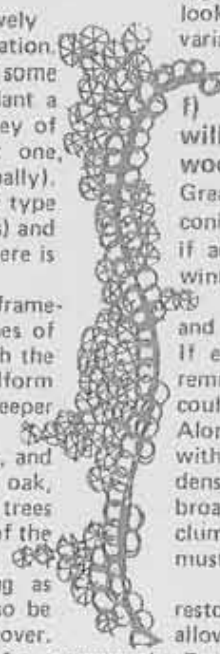
Because of the visual dominance of conifers their siting is critical in creating satisfying spaces that suit the 'grain' of the landscape. **Conifer belts block the landscape flow forming entirely separate and isolated spaces.** Each space needs to be developed so that it has some strong individual character, and some feeling of belonging. The strong character of both the conifer belts and the landscape which requires them, does not suit fussy contrasts.

Mixtures of tree species may be needed for shelter structure and permanence. **Contrasts between rows should be minimal** For an example, if there is a subtle contrast in colour between the rows (maybe lighter and darker greens) then they should be of similar form and texture. Generally it is best to **contrast only one aspect — either form or texture or colour.** With formal shelter planting arrangements contrasts in two or more features should be avoided as they look unhappily contrived.

Single rows of contrasting trees do not have sufficient visual depth and so look rather artificial and unbalanced. Thus it is important to make the shelter belt wider at certain points so that groups of trees can be planted to give the balance. For example, plant corner copses or extensions out into the paddock. If possible these deeper plantings should show some relation to the landform and help create more interesting spaces within the farmland.



e) Sites which support tall eucalypts but require slower growing conifers on the windward side for stability and permanence. Species should be chosen that contrast the least in colour and texture because of the extreme contrast of their forms. Because of the sharp contrast in form, it is very important that not just a single row is seen of each. Clumps and groups of eucalypts should swing around corners, and even be space-planted out in the paddocks to give the needed depth. Perhaps continue the conifers out in groups too. But the grouping and changes must not be formal or at regular intervals. The aim is to make the landscape look more balanced, that is, more natural. Rigid variations would not do this.



f) Existing vegetation such as riverside willows, native remnants and old deciduous woodlots have high visual value in the landscape. Great care should be taken to avoid planting conifer belts alongside these softer forms if additional shelter is required (such as for dense winter shelter, or greater height).

Be sure to use visually complementary species and vary the depth of planting, never use just one row. If exotic trees must be planted next to a native remnant, then Blackwood or (green) eucalypts could be acceptable to provide height and timber. Alongside riparian willows, height could be provided with an informal band of poplars. If low winter density is needed, native shrubs (eg. black matipo, broadleaf, lemonwood) planted in informally mixed clumps where the shelter is required. The shapes must be related to the riparian curves.

An old, deciduous woodlot is usually best restocked by excluding grazing for some years to allow regeneration.

With thanks for comments by David Stringer, S.C.C.B.

Any fringe trees must be large enough, planted in sufficient depth and preferably managed by selective rotation to read as a functional part of the forestry. That is a softer edge which is not merely cosmetic. If an edge of more than one species, they could be in very large clumps of each kind, informally woven in together; 2–3 species of similar shapes and colours casually mixed together throughout (at various spacings, some areas all in one species, other areas mixed). **No formal arrangement of alternating rows of different species, nor alternating within the rows, nor alternating within small groups, as these look contrived and fussy in the broad landscape.**

Often there are subtle changes in landform on the plains which have been ignored since the first surveyor arrived. **The subtle landform changes could be emphasised by using any natural line as the boundary to a plantation. Plantations should not cut across any small terraces or drainage swales at an angle.** If the whole block cannot follow the natural line, then at least extend some planting from the block out along the line to give some relationship to the landform. Perhaps the extensions and plantings that follow along the natural landform lines could be selectively managed, or two-tier to retain a logical framework when the mainblock is clearfelled.

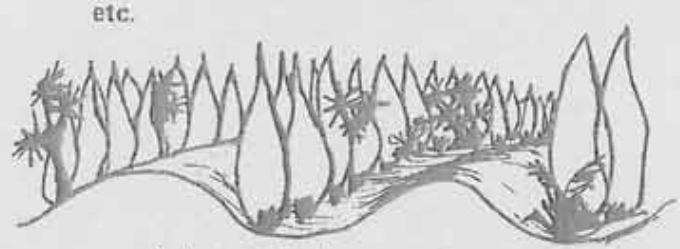
Woodlots on the plains offer a wonderful opportunity to create spaces by the direction and scale of the large tree masses.

SHELTER PLANTING

Landuse potential in most areas of South Canterbury is limited by wind. Yet in many areas there has been little effort to provide effective shelter. Maximum height and controlled density are the basic requirements for creating effective shelter. Thus, shelter system development provides considerable opportunity for developing and enhancing the character of the various landscape types in South Canterbury. Shelter belts preferably reduce the wind speed which is best achieved with a permeable planting. Dense shelter causes problems of wind turbulence, shading and stock camping (but is applicable for certain stock shelter situations such as the north side of roads). Trimming tops of belts is not desirable for visual or practical reasons – far better to choose a species that will grow to the desired height and add an understorey if low shelter is required.

In visual terms, if dense belts run contrary to the landform, they create conflicts in dividing the land up arbitrarily. Permeable windbreaks of soft form and colour, even if running contrary to the landform, allow the landscape to flow on through, which is desirable. **Thus, even formal shelter patterns of deciduous or open evergreen hardwoods are much less harmful to the visual landscape than conifer belt systems.**

Design and layout of shelter systems cannot be considered separately from the development of the whole landscape. A grid should not be laid over the farm, but the landform changes should be noted and a shelter layout developed around them wherever possible. An existing fencing layout should not automatically be used as the shelter layout pattern. **Wherever possible site a belt to run with the lines of the land itself– the swales, terraces, valleys, soil boundaries etc.**



A layout that does not relate to the landform will soon dominate the landform, especially if conifer belts are used. **No belt should suddenly stop or start.** The belt should link with other plantings, have a wider end group and continue some way in another direction.

Care and sensitivity is needed as the subtleties of landforms can easily be overlooked. The basic landform will be disguised and dominated if alien grid systems of alien tree belts are used. If lineal systems are used, care is needed with their siting as any straight line or geometric shape will become a dominant element. Even in a gently rolling landscape , a shelterbelt of unsympathetic siting, form or colour, or one that is isolated and not linked into a general landscape framework, can visually destroy a considerable area – often an area that is far greater than the actual farm.

A greater range of shelter species of soft green colour and rounded or upright form are preferable to the harsh colours and shapes of the exotic conifers which are so often used.

It is important that different types of landscapes are expressed in different types of plantings. If a small range of species is used in various landscapes, then their basic differences will start to disappear. **Developing shelter plantings which are derived from local native vegetation would help a lot to produce distinctive local character.** Such plantings could also be of considerable value in creating a network of wildlife habitat and provide for bee foraging which is so lacking in many areas. Fussy garden-style ornamental trees and shrubs should not be added to shelter belts as they do not suit the farm-scale landscape.

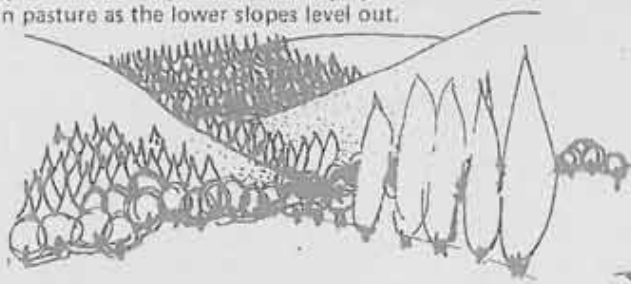
Shelter system suggestions:–

a) **Where shallow valleys lie across the path of the wind,** the valley system can be emphasised and good shelter provided by planting along the line of the drainage pattern. Not the exposed ridges, but the valley floors are better sites for tree growth. Deciduous trees can thrive, and tall growing ones (eg. Poplars) will give good shelter to the adjoining ridges.

Even single row planting can be adequate; or paired planting if along waterway edges. Plant groups at strategic places, and feather up tributaries to best fit the planting into the landform.

Native waterside species (eg. Kowhai, Cabbage Tree, Flax, Toetoe) could be used either alone, or just in certain areas along with tall exotic trees (eg. Poplars, Alders). Do not alternate different species; if a variety is used they must be mixed informally.

e) **Side and bottom boundaries preferably run with the lie of the land, drifting into adjacent pasture. They should never run straight up, or across at an angle to the contours.** Link the forestry into a network of plantings via natural patterns such as waterways. Link in with gully and stream plantings, shelter systems, even gradually changing to spaced trees in pasture as the lower slopes level out.



f) **No matter how large or small a hillside block is, it must be considered as part of a vegetation network and part of the general landscape.**

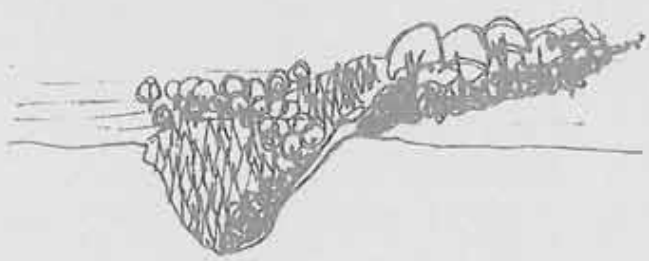
g) If a hillside block already exists that shows little sensitivity to the landform, it can be softened considerably by the addition of carefully shaped edge plantings. **Never add a band or row of any contrasting tree(s) around the edge to try and pretty it up.** Such bands are fussy and meaningless, they don't relate to the scale of the forest or the landscape. **If a contrasting species is used on the edge, then it must vary in depth, extending in drifts into and out from the main crop.** These drifts can relate to the topography, accentuating even minor ridges, valleys, streams and outcrops. Purely ornamental species should not be used for this edge. Carefully managed, quality timber trees would be better on a long term (selective) rotation. Hardwood species preferably, either deciduous or evergreen.

C. GULLIES

Gullies are frequently afforested as a viable land use for steep, shady or difficult country. In the downlands when a relatively narrow gully is planted from side to side up to the rim with dense conifers, the gully as a feature of the topography often almost disappears. The land is flattened out and the line of the strip of planting becomes the feature, merely a strip dividing areas of pasture. Variations in the density, type and height of plantings on different parts of the gully sides could allow some feeling of depth and view into the gully.

Gullies provide important plant and animal habitat. Any remnant bush and regrowth should be protected, and even could be extended within the gully, possibily some native cover carried on out into the pastoral land in shelter belts and odd unproductive areas, to allow a network of native cover and local character to develop.

Gully plantings should be confined by natural gully edges, not by fencelines which cut corners between different sections of the gully edge. Continue the planting at least some way up tributary gullies so that the whole gully system is treated as a landscape unit. But do not extend the plantings right to the surrounding skyline. Rather, keep the forest confined within the gully system.



If the land surrounding the gully system is also to be afforested, then it should be of a different species — perhaps conifers within the gully system and softer eucalypts over the adjacent hillsides or downlands. This contrast in colour and form of the tree species will accentuate the pattern of the underlying landform. Again, species transitions should be handled with care to create informal natural looking changes and edges.

D. PLAINS

Much of the plains landscape is devoid of any particular landform features and appreciation of landuse pattern and scale is difficult. Thus large woodlots can be established which do not have a great impact, especially if the edges are kept back from main viewing points such as roads.

Because of the broad scale of the landscape, large plantings usually look better than small ones. Small woodlots need to be linked in to shelter and homestead plantings to form a network.

The main positive impacts Plains woodlots can have is in the colour and texture of the tree masses and the design of the visible edge.

Better soils should be expressed visually by using hardwoods of rounded or upright form and lush green colour (eg. Poplar, Oak, Ash and Sycamore). On more droughty soils use less lush colours but still soft forms (eg. Wattle and Eucalypts). Preferably avoid using dark conical conifers where the climate and soils could support alternatives, as such form and colour is more visually suited to rugged country than the plains.

On the dry river fans and terraces, the dull colour and soft form of large growing eucalypts looks very appropriate. Unfortunately on many sites a small range of conifers is the only viable woodlot choice. **Avoid trying to pretty-up hard woodlot edges with a narrow strip of softer trees.** These are rarely visually strong enough and the contrast with the conifers is too great, so that the edge just looks fussy and cosmetic — no real visual value. It is wise not to use any ornamental trees or shrubs, nor coloured forms (gold, purple etc.) for these look totally out of context in the rural landscape. They are plants for the enclosed garden, not the countryside.

No. 2 BUILDINGS

Buildings are major interest points in any landscape. Because they are focal points, care is needed with their siting and design. No building should look as if it has just been dropped somewhere. Each building, and its approach, needs to be partly concealed to create some air of mystery.

Buildings in every type of South Canterbury landscape should look snug; look as if they belong there and could be nowhere else. In this way buildings can actually enhance the landscape and add to local character. Buildings should not be in strong contrast to the local character – not be too showy or obvious.

Unfortunately, the prominent sites, very large size, shallow roof pitch, high walls, and uniform light, shiny cladding of many new farm sheds create visual conflicts with other buildings and with the landscape. The sheds appear alien and obtrusive They conflict with house designs of a smaller, more human scale and variety in cladding materials. The sheds conflict with and dwarf lower walled, steeper (often hip) roof older sheds which sit so much better in the landscape. The required wall height of new farm buildings should be carefully thought out. Very few buildings need high walls. Many farm buildings would be greatly improved with lower walls.

A farmhouse should not be designed in isolation, but as part of a complex of buildings which is the heart of the farm. Even if not sited very close together, all buildings on a farm are best to be related in form, colour, and if possible, materials too.

It is preferable that every building be individually designed to best suit each particular site and use. The form and shape should be designed to relate to the very landform in which it will sit, to its own purpose, and to any buildings present.

Seek good advice. A farm accountant or farm advisor may know about finances, but not necessarily about buildings!

STANDARD DESIGNS

If considering using standard building designs, great care must be taken to find a type that suits both the site and any existing structures. Whether building a house, garage, shed, covered yards, silo, hut or tank, it is very important that the appropriateness of the design is carefully considered. An existing group of buildings can so easily be ruined by the addition of just one large or small structure of the wrong shape or materials.

Farm buildings need to be designed to suit their use.

Farm sheds need only be large enough to enclose their particular use. Why build so high if there is no use for the upper space, no hay loft, etc? Many sheds appear designed for urban industrial use rather than to suit a farm. Many houses look better suited to suburban living.

Any rural house needs such standard building elements as roomy verandahs; deep overhangs to keep out hot sun or shed snow; covered, sheltered areas for putting the gumboots and feeding the cat . . . .

Some thought is needed before deciding if there is a suitable structure available on the market. Hasty decisions for a cheap and easy solution often become an expensive regret. A better answer often requires more initial thought and care, not necessarily more money.

On many sites if care is taken in choosing appropriate structures, and with care in siting the structures in relation to one another and to the land, a complex of standard farm buildings could be an asset in the landscape. Careful ground excavations and reshaping, some planting and painting are all usually necessary for a complex to nestle comfortably into the landscape.

SITING BUILDINGS

When viewing buildings from any distance in the countryside, it is their siting and grouping which are critical.

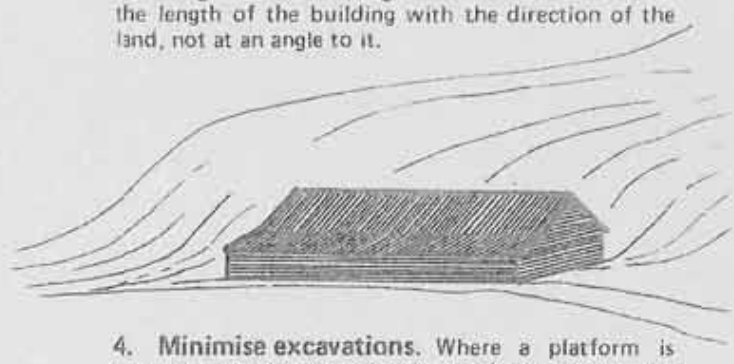
Often there are several alternative building sites that could be considered. Sometimes a small shift, a change in elevation or orientation would make a building look more comfortable in the landscape, and may better exploit local microclimate.

When siting a building aim to:

1. **Have a backdrop of land, not sky.** The skyline should not be broken by any building if it can be avoided, especially as seen from main viewpoints. The hill or terrace behind should frame the building, and possibily reduce wind exposure too.

2. **Be near a change in landform** e.g. at the base of a hill; on a terrace part way up the hillside; at the base of a small terrace such as found on the plains; or tucked down in a fold of the ground.

3. **Align the building with the land.** Run the length of the building with the direction of the land, not at an angle to it.



4. **Minimise excavations.** Where a platform is cut to sit the building down into the landscape, the cut and fill slopes should be carefully shaped to blend them into the surrounding landform. There should be no harsh lines or sudden changes. Carefully reshape the ground up around buildings in the scale and direction of the natural landform. Once finished the buildings should look tucked down into the natural landform shapes – no artificial looking bumps or banks.

5. Keep well back from the road. Surround rural buildings with productive land. They should not cling to the roadside as in urban properties.

6. Be viewed amongst or against trees. Trees help considerably in relating a building to the landscape, and providing shelter and shade. The trees should swing around the ends of gable buildings especially, and follow the landform, linking into the general planting framework. The trees must be large or dense enough to relate to the size of the building - perhaps a casual mixture of fast and slow growing species.

7. Take care with views. Do not a site a building where it will interrupt a view unnecessarily. When building to take advantage of the west and north-west mountain views, do not leave exposed to the north-west winds. Instead preserve vistas. Provide shelter and seclusion, peeking and framing small portions of the mountain views. Vary the views from different parts of the building, different parts of a site. Remember too the views of the farm land.

8. Group with other buildings. Place parallel or at right angles to other buildings to (even partially) enclose a space. Group as close as possible allowing for manoeuvering and expansion. Do not site any building at skew angles to another if they can both be seen from the same viewpoint. Create sheltered enclosures for pens, yard, or court.
The grouping is especially important on flat land where the relationships between buildings become more significant than the relationship to the landform.

9. Relate to other buildings of similar scale, shape, materials and colour. Create a building complex which will be a better asset in the landscape than a number of scattered buildings. Do not place buildings of a different size and shape near each other as their differences will be emphasised.

10. Take care with the siting of every structure. It is pointless to carefully site a house if a shed, garage, or silo is just plonked down without thought to how it relates to the house or to the landscape.

11. Do not leave a small structure on its own. Either attach to another building (e.g. as a lean-to); link with other structures with walling, fencing or planting; or, dig it right into the ground.

12. Cluster tanks and silos close together, and close to buildings. Keep them below the skyline, against a bank, hillside or vegetation. Do not place them equidistant in a straight line. With a single tank on a hill, place below the brow or dig it in so that it does not break the hill silhouette.

DESIGNING BUILDINGS

Building design should be part of the character of the local landscape. The same type of building should not be used in all the different types of landscapes. For building design should express the shapes, textures and colours of the particular landscape in which it sits.

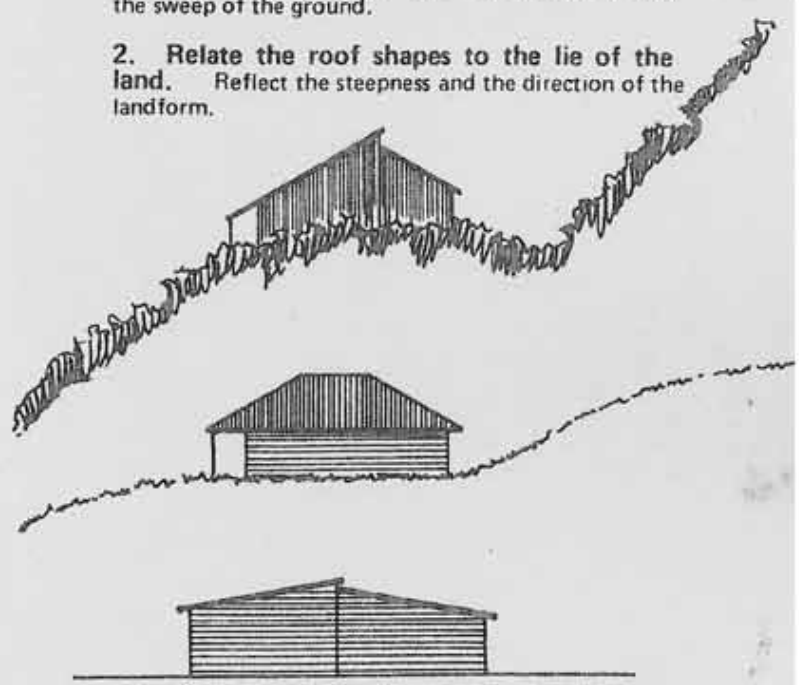
So many newer rural buildings appear unsuited to their landscapes. Often an old barn looks more appropriate than the new, expensive homestead! Some newer buildings are described as 'cheap and nasty' others ostentatious, or even as 'visual pollution' in our beautiful countryside. Although every person is different in their likes and dislikes, there are some very basic principles of design that apply to all of us.

It is sad that both prefabricated buildings and expensive houses frequently show little relationship to the design principles which make a building look right in itself, and right in the landscape. Many look so stark and alien that frantic attempts are made to soften their impact with planting. It is much better to design the structure carefully from the outset than attempt to cover-up later.

When constructing or extending a building, take care to:

1. Aim for low lying buildings. The proportions should be much wider than high to relate the buildings to the ground. The building should hug the sweep of the ground.

2. Relate the roof shapes to the lie of the land. Reflect the steepness and the direction of the landform.

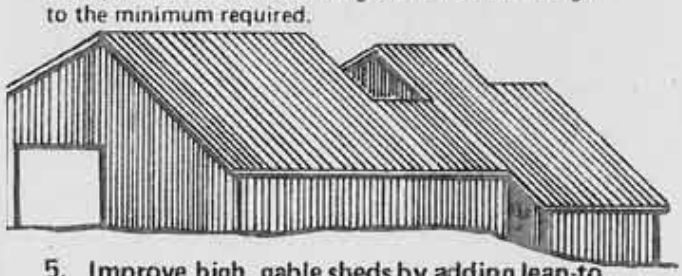


Keep the ridge lines of all buildings parallel; also at right angles on flat sites.

Very steep roofs with low walls can look very top-heavy. A-frames should be avoided except in rugged, steep, conifer country.

3. Have the same roof type and proportions on all buildings in an area. e.g. Do not build a circular or lean-to structure if there is already a gable one; nor a low pitch if there is a high pitch there. Have all circular or all lean-to, but not mixed. If a different form must be used, keep it quite separate; ensure it is sited where different types cannot be seen at the same time.

4. Reduce the impact of large sheds. Although many farm sheds now need to be very large, with careful design they need not look so big. Break and vary the roof height, vary the width or break into an L-shape. Lower the total height and the wall height to the minimum required.



5. Improve high, gable sheds by adding lean-to structures. Add to the sides not the ends; the greater width and lower walls will make the whole building lower and less dominant.

Pergolas and conservatories carefully added to houses can be similarly effective, & for climate control. Lean-to additions usually look better than separate buildings placed alongisde.

6. Avoid visible basements or foundations. Keep the floor closely related to ground level. The house or shed can then settle into the landscape. It also encourages better indoor-outdoor contact.

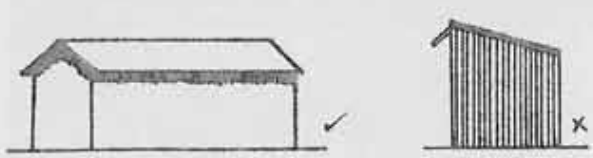
It is better to step the building down the slope than have large foundations. This relates the building to the site and reduces its apparent size.

7. Ensure houses look like they belong. Use the traditional shapes of the area that settle in well. Often very simple and timeless, with all houses and sheds of similar form e.g. single storey, hip roof, with wide verandahs on the houses. To continue using such forms is much preferable to using sharply contrasting styles. No urban, suburban or foreign styles look comfortable

It is to everyone's advantage if all houses in each landscape type relate to one another, to other buildings and to that landscape. They are best not to conflict and compete; not be obvious or fashionable and so date quickly.

8. Deepen facades. Houses and sheds will nestle well into the countryside, and be much more inviting, if they have depth which is visible even at a distance. Spacious verandahs should be part of every rural house as they are useful, inviting zones between outside and inside.

9. Have an overhang, or eave, especially on higher buildings. This gives a shadow line between roof and walls which reduces the apparent size of the building and anchors it down to the land. Do not make the eaves very deep on small buildings.



Angled overhangs make lean-to sheds look very unbalanced. Avoid these.

MATERIALS

Look around at buildings in your area. There will be materials that look appropriate in their environment and probably some that don't. Take note of which materials suit particular types of backgrounds. What suits a conifer background; subtle tussock country; the lush rolling downlands; or dry stoney plains ?

Some points to note when choosing building materials:

1. Whenever possible build in materials that occur, or are used traditionally, in the local area.

2. Use a minimum number of different materials in any complex. Aim for unity by carrying through some materials the same on every building.

3. Preferably use a different material on the walls to the roof, to better define the shape.

4. Wall materials often suitable include timber boarding, tanalised plywood, coarse plaster, horizontal corrugated iron and corrugated asbestos, adobe brick, grey and fawn concrete block, sawn limestone, and other local stone. Vertical hit and miss boarding can be an effective cladding on semi-enclosed sheds.

5. Roofing materials most suitable have a strong directional texture such as standing-seam sheet metal, particularly for larger, steeper buildings, and corrugated iron. But they must be coloured (or have the oxidised finish - Lyten).

Dull, dark tiles are sometimes successful, but look too fussy in the open landscape, particularly if glossy.

6. All building materials should look like they happily belong to that landscape. Bright, light, fancy and foreign materials should be avoided, as should stone from other areas.

7. Always use materials honestly. This means avoiding asbestos that has been shaped to represent brick or timber; avoiding steel roofing sheets shaped to represent tiles; and, avoiding concrete patterned to look like stone. Also resist pseudo-colonial features especially those made in modern materials.

All materials should express their functions and qualities honestly, which they cannot if pretending to be something else.

Although some of these materials may have initial appeal, their dishonesty often becomes irritating.

8. Clad a building in materials that enhance the proportions and better relate it to the site.

Corrugated materials, timber boarding, etc used horizontally will make a building look lower and sit it more comfortably in the landscape.

Vertical textured cladding will emphasise its height.

9. Never change the kind of cladding at a corner of a building as two walls can be seen at once.

10. Always carefully match materials when a building is extended.

11. With a low-pitched gable on a smaller building, continue the wall cladding to the top of the gable. A low-pitch gable looks very mean if picked out in contrasting material.

12. Try to avoid roof-light patches. Instead place translucent sheets in gable ends, or as a strip along below the eave. Or use a clerestorey building form.

13. Use timber in preference to concrete, steel,etc. wherever possible. Timber is not as harsh and thus suits the rural landscape better. Exposed framing and foundations, ramps, steps, tanks, bins, troughs, etc. can be built in timber (poles, boarding or plywood) rather than concrete.

COLOURS

Subtle colour use can do much to make buildings a greater asset to the rural landscape. Even mismatched groups and badly proportioned structures can be better related to one another and to the landscape through the use of suitable colour.

Remember the colours of nature are mostly very muted, they are soft and neutral. Bright colours are confined to small, well-defined areas set against the muted background. Aim for similar colour use on buildings. Study the background, the landform and vegetation. Consider the relationship of buildings, and different parts of a building, to the background elements. Develop colour schemes to blend and contrast subtly with the background.

Natural materials have their own characteristic colour. It is best not to change this unless essential. Colourless preservatives can be used where necessary.

Concrete tanks usually look best left unpainted.

If a building is lighter than the general colour of the landscape, or has shiny surfaces, it draws attention to itself, and looks bigger and somewhat shapeless. Usually it is best if rural buildings are not focal points in this way.

Aim to co-ordinate the colours of various buildings in an area, even on neighbouring properties, to make them look as though they all really do belong to that particular landscape.

Within each property be sure to co-ordinate the colours of all buildings and structures - house, garage, sheds, silos, etc.

Some notes on colour use which may be useful when deciding on a colour scheme.

As roofs reflect more light than walls, they appear lighter if the whole building is painted the one colour. Roofs usually need to look darker than the walls to visually anchor the building down to the ground. Thus the roof must be painted quite a lot darker than the walls to compensate for the higher reflectivity, and eventual greater fading.

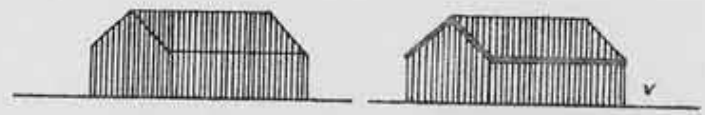
Merely painting the roofs of sheds darker can help a lot to reduce their impact.

Silos grouped with buildings, particularly tall ones up to or above roof height, should be painted the same dark colour as adjacent roofs. Smaller ones may be better matching the walls. Where tall and short are mixed, paint all dark. For very tall silos, seek specific advice.

Most houses look better if they are not light or bright focal points. Often merely painting the trim darker improves the look of a house considerably, particularly if the roof and walls were already darker.

Buildings of different shapes and sizes that can be seen in the same view can be better related if the same roof and wall colours are used on each one.

To define the shape of buildings, the junction between the roof and walls can be accented. But this accent line, the barge board and gutter, should be darker than the walls, probably the same colour as the roof, or darker. Do not pick out this line in a light colour.



Paint the whole of small buildings in one colour (tanks, small sheds, etc.). Any colour changes and accents will just make them look even smaller and fussy. Use one colour that relates to the landscape - the same as the walls of any adjacent buildings. Do not use a very dark colour unless sited against dark vegetation.

Accenting large doors with the darker colour will help to break up large shed walls. Small or poorly proportioned features should not be accented - just paint all the same colour as the walls (window frames, trim, etc).

A simple method to choose colours to nestle a building into a particular landscape:-

1. Assess the colours of that landscape from the middle distance. Photograph at different times to see the changes.

2. With colour samples choose a colour that blends with that backdrop thoughout the different seasons. Camouflage is not the aim, so the colour should not be a perfect match. The backdrop colour will vary with the seasons, with different lighting, etc. so that a match is impossible. Greens should not be chosen as a near-miss can appear as a clash. It is important to choose a colour of about the same depth as the background, not lighter nor much darker.

Use this colour for the walls of buildings.

3. Now select a much darker colour compatible with this wall colour, and with the landscape, for the roofs, gutters and barge boards.

4. For more precise selection methods refer to the booklet 'Colour for Structures in the Landscape' Tim Heath, Lincoln College, 1978. $7.50.

With thanks for comments by David McBride, Barrie Bracefield McBride Limited, Design Consultants, Timaru.

SUGGESTED COLOURS FOR STRUCTURES IN RURAL SOUTH CANTERBURY

LIGHT-TONE LANDSCAPES

Tussock, rough pasture, stoney, dry, coastal and limestone country.

For roofs and trim —

LISBON BROWN 10 B 25	BRONZE *3-038	DARK TAN 04 C 39	BROWN BRAMBLE 06 C 39	DUNE 10 A 11

For walls, small structures, tanks —

SQUIRREL 08 B 21	CANVAS 10 B 19	GRANITE GREEN 10 B 21	DELTA 10 A 05	TEAK *3-043

MID-TONE LANDSCAPES

Lush, pastoral Downlands, irrigated, cropping and horticultural Plains.

For roofs, trim and large silos —

BIRCH 10 B 27	TOBAGO 08 B 27	BURGUNDY *1-024	NILE BLUE 18 C 39	CHARADE 18 B 27

For walls, small structures, tanks, small silos —

PEAT 10 B 23	COFFEE *3-037	FRIAR GREY 10 A 07	PINE CONE 08 B 23	HOT CURRY 08 C 37

DARK-TONE LANDSCAPES

Bush-clad and forested country.

For roofs and trim —

RANGOON GREEN 12 B 29	MAIRE 10 B 29	CUBAN TAN 08 B 29	HAVANA 04 B 29	CINDER 18 B 29

For walls, small structures, tanks —

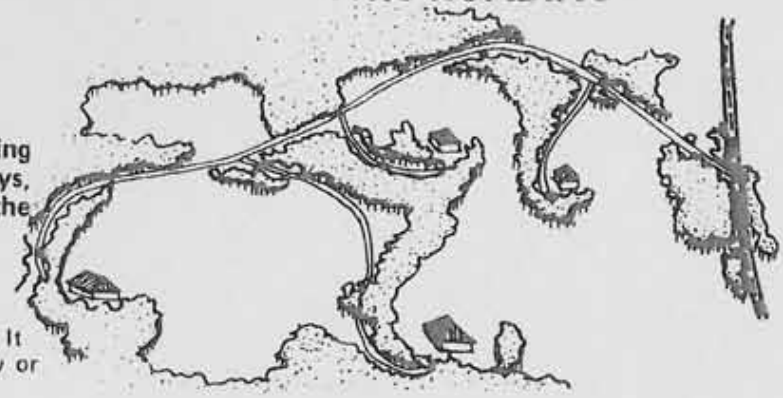
CORK 08 B 25	PEAT 10 B 23	ANTIQUE BRASS 08 D 45	IRONSIDE GREY 10 A 09	DARK TAN 04 C 39

Colours from Resene B.S. 5252 colour range. Those marked * from Resene B.S. 2660 range.
Colour chart printed by Resene Paints Limited.
Designed by Diane J. Lucas for 'Landscape Guidelines for Rural South Canterbury'.
Colour ranges available from Resene Paints Branches at —

Timaru	52 Woollcombe St.	phone 84-723
Christchurch	39 Sandyford St.	phone 67-441
Dunedin	304 Moray Place	phone 776-566

2.1981

No.3 ROADING



Before constructing any roading, including driveways, tracks, paths, and laneways, consider various alternative routes and the impacts each would have.

DESIGN PRINCIPLES

1. Any roading should appear logical. It should follow a natural route, curving to follow or even emphasise landform changes.

2. Roading should be sited near an edge. Follow edges such as a change in landuse, vegetation or slope, or along a waterway. Follow the boundary, trying not to cross it, to create a logical looking road line.

3. Avoid crossing an open space. If a space must be crossed that has no edges to follow, then some edges need to be created. It is often effective to establish large clumps of trees to curve around. But relate such planting to the overall planting framework of the area. The drive cannot be treated in isolation.

4. Follow the most gentle terrain. Avoid crossing steep slopes. Where hillside roading is unavoidable, site where the road will be enclosed by landform and/or vegetation. Keep it out of sight.

5. Keep earthworks to a minimum. If it is necessary to make cuts, the batters should be reshaped to merge them gradually back into the natural slope. Revegetate batter slopes to match undisturbed land alongside.

6. Do not push spoil over the edge. Burying soil and vegetation can cause greater scarring in the landscape than the actual earthworks themselves.

7. Cross waterways carefully. Cross at right angles to the waterway direction. Keep the crossing as low as possible, the road should go down toward the water - not up over a bump. Preferably use simple wooden bridges or wood stave culverts. Concrete usually looks unnecessarily obtrusive. Plant to emphasise the waterway.

8. Design for surprise and expectation. Curving alignments will do much toward this. Curving to follow natural or created edges. But avoid frustrating curves and deviations which have no apparent reason.

9. Align and plant to emphasise vistas and screen poor views. An occasional glimpse of a mountain peak or homestead is usually more effective than having full view throughout. Site near, or plant, trees to enclose the road. Vary the enclosure and openness, the light and shade.

10. Set houses back from a main drive. Each house should have individual access and privacy from the main drive.

11. Changing even a small part of an existing alignment can often dramatically improve the experience of entering, viewing, or living on a property.

12. The driveway is part of the farm landscape. It should be designed and planted as such, not as an extended garden. Simplicity is crucial in plantings. Use large-growing tree clumps and/or massed local native vegetation, leaving open areas with farm views. No dotted shrubs or small trees.

13. Avenue plantings are frequently unsuccessful. Either because only small-growing trees, too widely spaced, visually incompatible mixtures and alternations, or, odd tree losses occur. It is safer, and usually more effective to keep to one or two large- growing, green-foliaged tree types in informal clumps, through which the drive winds.

14. A driveway should not dominate a house It should not cut the house off from the garden, or surround it to create a 'traffic island' impression. A drive should not lead directly to a garage, but direct people to the appropriate door. The drive should not pass where the privacy of indoor and outdoor living spaces is encroached upon; neither in the daytime nor by headlights at night. The layout should not encourage parking where the vehicles will obstruct views from the living spaces.

15. Do not have loops visible. If a drive must loop around enclosing an 'island', ensure one side of the loop is not visible from the other. Use tall screen planting so that it does not appear as an 'island' from any point, for example.

16. The drive within the garden should also be on an edge. At a change in slope, or a change from lawn to mass planting. It should not carve through a lawn, nor be edged with little bands of planting.

17. Surface drives with local gravels. Preferably the grey-fawn river pebbles. Or, top asphalt with these. Do not use feature surfacings such as white or pink pebbles that are too obvious, and do not look like they belong there.

18. Do not use any concrete curbing. Curbs create a harsh edging that is totally out of place in the rural landscape. If any edging is required it should be discreet or informal. Timber placed flush with the road surface can be effective. Also local stone set in the ground, with the ground surface on one or both sides of the edging stones level with their tops.

19. Reinforce heavily trafficked grass. Instead of gravelling gateways, lanes, etc, the grass can be reinforced to carry greater traffic. Mesh materials are available that can be laid in potentially muddy areas. Or use perforated concrete paving slabs and mats infilled with grass in special sites.

No.4 FENCING

In most South Canterbury landscapes it is preferable that fences are as unobstrusive, as invisible, as possible. Unfortunately many existing fences detract from our rural landscapes because of bad siting or unsuitable design. Some basic design principles to better fit fences into our landscape are listed.

SITING

When fencing, or refencing, consider the alternatives and try to:

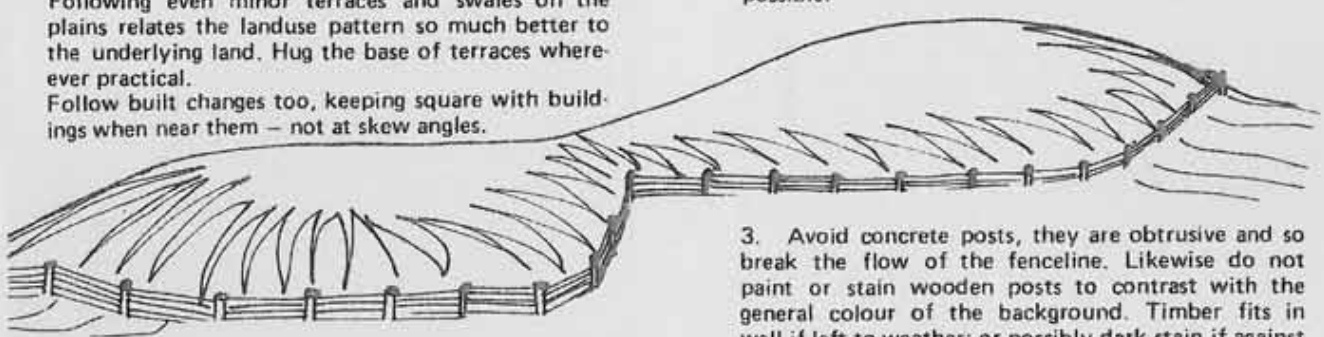
1. Site each fence as a logical division of the land. Relate to, and encourage, variation in landuse and land management. Separate different soil types, different gradients and aspects.

2. Relate the fenceline to the landform. Follow the base of a hill or terrace, sidle up around a slope where practical. Often existing rigid grids are not necessary.

3. Avoid disrupting skylines.
Site for a background of land or vegetation.

4. Avoid interrupting significant views.

5. Follow changes and edges carefully.
Vary the fenceline to fit the natural line as closely as practical. Do not erect extensive straight fencelines just in the general direction of the natural change, but respect and follow some of the subtleties of nature. Following even minor terraces and swales on the plains relates the landuse pattern so much better to the underlying land. Hug the base of terraces wherever practical.
Follow built changes too, keeping square with buildings when near them – not at skew angles.



6. Avoid scarring with fenceline preparation
If earthworks are necessary, the siting of the fence must be sensitively handled. There should be no banks or bumps left visible. The strip should be revegetated to match the cover alongside. Fenceline accessways also need to be sited, constructed and revegetated with care to minimise their impact.

Long-term scarring from fenceline preparation has been very destructive to many South Canterbury hill landscapes. Much greater care is needed as such lines should be invisible in the general landscape within a year of contruction.

7. The rapid increase in permanent all-electric fencing causes conflicts in the landscape. Designed as psychological rather than physical barriers to stock, they are becoming lighter and less of a visual barrier. Whilst this is good in visual terms, ironically they are becoming a greater physical barrier to people. The restrictions these hostile barriers place on people's access, particularly children, should be carefully considered before deciding on their use and siting.

8. The siting of supposedly insignificant post and wire fencing may not seem to be very critical. But if badly sited they can be most distracting under certain light conditions, when the line is reinforced by the contrast of colour and texture on either side with different cover or management; or, if ever used as the line for a shelter belt or stone heap. Thus care should be taken in siting even generally invisible fences.

DESIGN

The design of rural fences should be as simple and unobtrusive as possible. They should not be features. They should never compete for attention with the landscape nor detract from landform or vegetation, but be a very minor insignificant part of any scene. If there is a local fence type and it seems appropriate, then it should be used. **The less variety of fence type the better.**
Great care is needed if fences of different design are to join up. Try to site where the actual change cannot be seen – or plant to camouflage the change.

Post and Wire Fencing

1. Tanalised timber post and multi-wire fencing is very satisfactory for both farm and garden use where no visual break in the flow of land is wanted. With careful siting the post and wire does not break-up landform patterns – it allows visual links between house, garden and farm.

2. The horizontal line of the fence needs to be emphasised to flow with the land. Thus verticals need to be as far apart, low, and insignificant as possible.

3. Avoid concrete posts, they are obtrusive and so break the flow of the fenceline. Likewise do not paint or stain wooden posts to contrast with the general colour of the background. Timber fits in well if left to weather; or possibly dark stain if against a dark conifer forest.

4. Preferably use just one kind of upright in a fence. and at a maximum, two. Avoid any uprights between posts where possible. Perhaps just a wire dropper where needed. Or timber battens.
Do not use posts, wires and droppers, as this becomes a very fussy looking fence. A greater number of wires with less or no battens is better.

5. Posts should be as small a diameter as practical (even 90 mm timber posts average three times stronger than concrete ones) Ensure the posts are put in the way they grew – thinner end up.

6. A number of plain wires is preferable to wire netting where viewed at close range, such as between garden and paddock. With no reflective wires this fence would become more or less invisible – generally more suitable than a ha-ha.

7. Fences of steel standards and wires can be most successful in rugged country. With strainer posts being the only timber used. Avoid mixtures of frequent wooden posts with several standards between.

8. Avoid adding obvious outriggers or vertical extensions to posts. They look clumsy and makeshift and ruin the simple line of a fence.

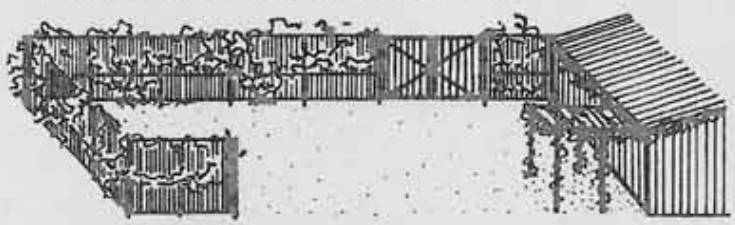
9. Stays should not be too obvious. Preferably place at an angle to the ground.

Timber Fences

For a fence with partial visual enclosure, use simple timber post and rail. Leave to weather, or where against dark vegetation, apply dull, dark stain to both posts and rails. Siting of such a fence is critical. It has to look logical and be half-solid for a reason unless following a change in slope. It is not adequate to divide a grassed area, so should be reinforced with substantial planting. It can divide a planted area from an open area, or a slope from the flat. A rail fence should not go up a slope or across at an angle. Curves can be effective.

A rail fence should never just end or openly change to a less visible fence. It must enclose a space or link with hedging, buildings or more solid timber fencing.

A solid hit-and-miss paling timber fence should be above eye level in height (1.8 to 2 metres). It should be linked to buildings and enclose a space, keeping square with buildings and returning at right angles. Keep the top level, or parallel with the ground, but do not step it. Use wooden posts and rails. Keep the design simple, with one pattern used for all fences in an area and on any gates. Always soften with planting. Remember a permeable structure provides better general shelter than a solid impermeable one which causes wind turbulence. Finer palings (50 to 100 mm) usually look better than heavy (150 to 200 mm) ones and finer palings in a permeable fence require less timber overall.

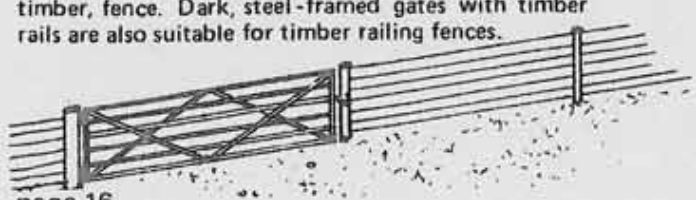


Stock Yards

Try to site yards at the base of a slope or next to a clump of trees to nestle them in. Planting shade and shelter can also help. Natural timber yards look most suitable in all landscape types. Shiny steel can be very intrusive – an unwanted focal point.
Built in timber the curved yard designs are not only very practical, but when well sited they can be a real asset in the landscape.

Gates

A gate should be visible as the entry point. Theoretically it should be more see-through than the adjoining fence. Obviously this is rather difficult with our post and wire fences. Gates in these fences should not look obvious or heavy – lightweight, weathered, timber gates are suitable. The high reflectivity of white-painted and steel gates makes them look too prominant. But darker, duller steel gates would be suitable.
A gate should be the same height as the adjoining fence or wall, with a level top. Try to use the same material for the gate as is in the adjoining fence e.g. a timber gate for a timber post and wire, or all timber, fence. Dark, steel-framed gates with timber rails are also suitable for timber railing fences.



Walling

Some of the stone available on South Canterbury sites can effectively be used for walling. The wall must appear to belong, to have "grown" out of the site. Stone should never be brought from another area. This destroys rather than develops any local character.

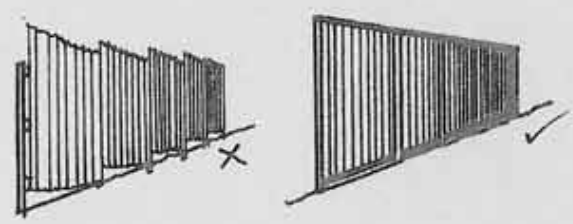
Use limestone in sawn blocks to display its character; not bolstered as this is a pseudo-natural finish. Preferably leave it to weather, to soften and merge better in the landscape.

Try to use greywacke boulders in tapered, dry walls. If any mortar must be used for stability, tint it dark grey and recess so that it is not visible.
Construct the capping layer carefully to form a neat line of matched stones only one stone wide.

The only brick or concrete that should be used as walling is an actual extension of a building of the same material. Extend out as a high wall to link buildings or create courtyards. Concrete or brick walling should not be used as separate structures. Their urban character is not suited to the rural landscape. (If such a concrete wall exists, paint it dark and cover with vegetation – or remove it).
Don't mix materials in a wall e.g. not concrete or stone with timber. It is usually best to keep to just the one material.

Corrugated Iron Fencing

Associated with rural buildings, corrugated iron fencing can be very effective. But to be successful the top must be level, not stepped. The wooden posts and top rail should come right to the top of the iron.
A wooden capping board should be placed on top of the posts, iron and top rail. The iron can be laid horizontally. The fence should be eye-level height– probably 1.8 m. The iron needs to be painted a dull, dark, earthy colour, on both sides, to match adjacent buildings. Paint or stain posts, rails and capping to match iron. Site the fence to enclose a space. Attach to buildings, keeping square with them, returning the fence at right angles.



Entranceways

Avoid fancy or urban-style entrance gateways. Instead keep the entrance rural in character. Timber gates are preferable. Do not use concrete, brick, alien stone, etc. Not even if the house is built of these materials. The entrance should be part of the farm landscape, not an extension to the house.
If there is stone on site, with very careful siting, design and construction, stone entranceways can be successful. But sadly they often appear as isolated monuments rather than an integral part of the farm.

No. 5 HOMESTEAD AREAS

1. Rural houses should not be sited within 'sections' A rural house and garden should merge into the surrounding landscape.

2. Although a feeling of spaciousness is desirable, a rural garden need not be large. It is more important to relate the house and garden to a larger area – perhaps a grazed hillside that flows on from the lawn; the creek and associated vegetation that continues right through the property; the treed backdrop that merges into shelter belts and woodlots; and, a mountain peak "borrowed" from the distant view.

3. No matter what type of garden is to be developed, the most significant requirement is a sense of unity. Unity with the local landscape, and unity within the garden itself. For restfulness and beauty, the natural landscape should be the basis of design.

The most satisfying gardens are usually deceptively simple and casual, with a look of easy inevitability. So take care with proportions and don't be tempted to overdecorate.

4. The fundamental pattern of a homestead area is formed by the distribution of open spaces in relation to the masses. The landform creates the underlying pattern, and the masses (building, walls, vegetation, mounding) divide the area into spaces. The masses are used to create an interesting and useful series of spaces, each space directing or linking to another.

The size, shape and purpose of spaces must be designed with care – they must not look like bits left over once the things have been put in ! Variety of spaces is given with different microclimate, levels, scale, views, surfacing, enclosure and activities.

At least in the Downlands and Plains the masses will include a framework of large, green-foliaged trees. In the semi-arid country, tussock-covered mounds may be more suitable. Division between spaces (planting, mounding, screen fencing) need to be above eye-level, but not necessarily solid or continuous, sometimes merely implied.

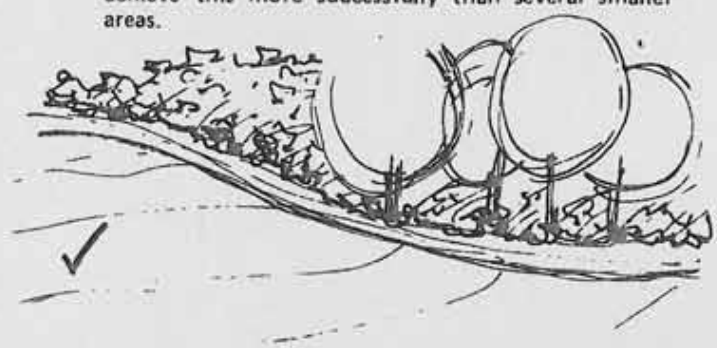
5. The house and garden should be designed together. If the house is designed before the garden concept is worked out, then many opportunities may be missed. The house and garden must be considered together as one living unit.

6. Maximise outdoor-living opportunities. Provide a variety of spaces easily accessible from various rooms. Provide spaces for different times of the day, different winds and seasons. With all-weather surfacing, weather-proof furniture, some summer shade and a winter sun-trap. Perhaps areas for smokos and lunches handy to the kitchen; for lazing near the bedrooms; and, for play where easily supervised. Possibily also seperate areas away from the house, perhaps outside the garden – for privacy, quiet sitting, a change; or, for play, bar-b-ques, etc.; or, to take advantage of a special feature (a rock, pool, or some bush perhaps) or view (maybe out over the property).

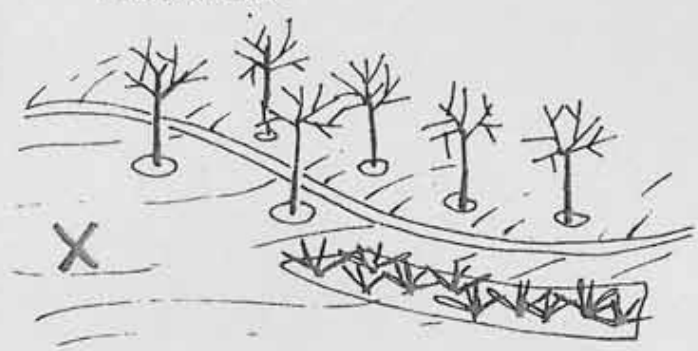
7. Circulation in the homestead areas should be interesting. (see notes page 14). Flowing drives and paths, following edges, linking views. Creating interest and expectation by not being too direct, not showing everything at once.

Vehicles and driveways should not be allowed to dominate the area around a house. Try and keep vehicles well-separated from living spaces.

8. Mown areas need only be big enough to firstly be in proportion with enclosing building and trees, and secondly be useful for play. One large uncluttered sweep of lawn on one side of the house will often achieve this more successfully than several smaller areas.



Have lawn where it is enjoyed – otherwise mass plant or graze it. Shrubs, small trees and garden plots should not be dotted in a lawn. They must be massed together and linked with enclosing elements. With discreet fencing, a lawn can be visually continuous with grazed areas.



9. Fences and walls in a homestead area should be of limited variety. (see notes page 15-16). Generally two types are needed:–

a) A low invisible barrier to exclude stock but not interrupt views. This helps incorporate the homestead area into the local landscape.

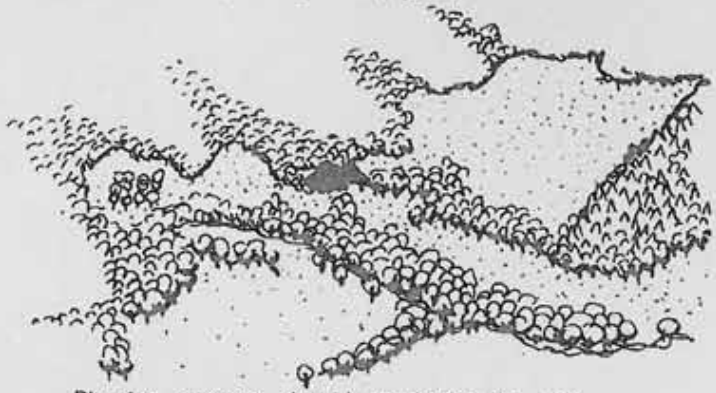
b) A high visual barrier to divide spaces and provide shelter. This should be an extension of buildings, helping to create the indoor-outdoor transition.

Also use pergolas, conservatories and courtyards to develop this transition. They must be carefully matched to the house design to be successful.

10. Paving materials should either be the same as the house is built of (e.g. matching brick) or a local material – local stone, cobbles, exposed aggregates, loose gravels or timber either as decking or paving blocks.

Simplicity and continuity are essential, preferably using the same paving material throughout a site. The paving should not be a feature in itself, so avoid glarey concrete and urban style materials.

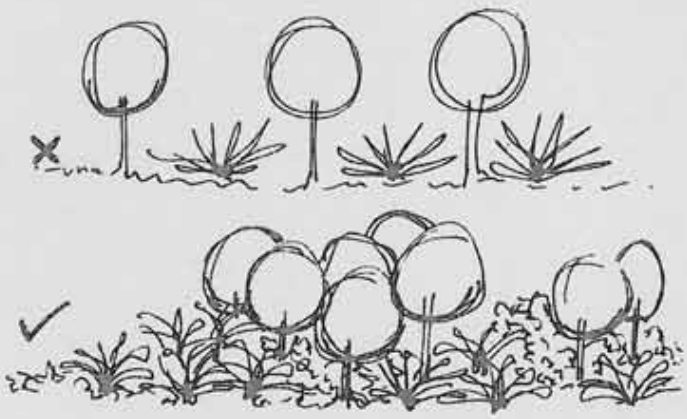
11. Enframe the homestead area in farm-scale plantings. Do not take garden-scale plantings out into the farm (see planting notes page 3).



Planting patterns should emphasise the topography, create spaces and microclimates, soften the impact of buildings and direct views. The framework should read as a mass of vegetation not a collection of specimens. Consider the beauty of large groups of one type of tree. Avoid coloured foliage (golden, variegated, purple etc.) as they become frustrating focal points detracting from more subtle contrasts and changes.

Group trees in varying numbers at varying spacings (some very close as occurs naturally).

Proportions and even growth rates are critical for successful formal plantings. Thus it is best to avoid rows, pairs, avenues etc. Never alternate different types.



12. A garden is not fixed but always changing. Mass plant areas with trees, shrubs and groundcovers. Create dynamic plantings adding and removing species as the microclimate within the planted area changes. Study local natural plant successions for guidance.

Use of native vegetation can do much toward developing significant local character. Native cover should form the basis of plantings – perhaps with particular exotics for flowers, fruit, shade etc. amongst them. Productive plants (for fruits, herbs, nuts, vegetables) can be satisfactorily incorporated with purely visual plants – they don't have to be screened off in a special area.

13. Generally keep bold flower colour and large foliage in the foreground – near the house, or in an enclosed area. Subtle colours and finer foliage being sited further away, to give greater depth and spaciousness to a garden.

Particularly showy plants for floral work etc. often disrupt the restfulness of a garden. Such plants are best kept to an enclosed area where they are viewed only at close range.

Carefully site colourful flowering plants to maximise their impact. Simplicity is important - keeping different colours in separate areas, with plenty of green foliage to enhance the colour.

14. A swimming pool in the rural landscape should be sited and designed to look as if it belongs there– is not an urban visitor. Preferably site a pool in a depression or at the base of a slope; the rim at ground level; lined with a colour that gives the pool depth (e.g. brown, black, gold, green or grey – depending on the colour wanted when the chlorinated water is added).

15. All structures should be uncluttered, of rural character, not "features" – even mail boxes, bar–b–ques and seats.

Clothes line wires are not obtrusive but many of the structures that support them are ugly. Carefully sited timber supports, with wires strung between, can be most effective.

16. Inappropriate maintenance ruins many homestead areas. Fanatical tidiness is not appropriate to our rural landscape, nor to our relaxed society. The unfortunate trend to equate tidiness with looking good is hopefully declining.

Harsh, trimmed or curbed edges, bare ground, sparkling concrete and paintwork, fussy, spotty, and specimen planting have little visual value – they are often wasted work.

Subtle transitions are important in the rural landscape. For healthy beautiful and low-maintenance gardens, planting should be informal, multi-layed, and intermingled; edges soft and ground mulched.

Any home in the rural landscape should appear as a welcoming refuge, the heart of activities, and an integral part of the local landscape. In much of South Canterbury the greatest landuse intensity and diversity can be centred at homesteads. The most intensive uses, which require greatest accessibility, being sited closest to the homes, radiating outwards to the extensive uses (grazing and woodlots) furthest from homes. Thus shelter systems and fencing intensify towards the homes; buildings are clustered together; and orchards, tree crops and multi-tier systems will be sited near the homes. The actual dwelling areas are a most crucial unit at the heart of the property where the microclimate is most favourable and visual interest greatest.

Sadly, many homes, of both property owner and labourer, do not appear to belong to the property. They appear as alien houses and sections, perhaps dropped there by accident ! No house or garden should appear as a separate feature in the landscape. Instead they can be an integral part of the landuse pattern and local landscape character.

APPENDIX: SOUTH CANTERBURY NATIVE VEGETATION

1. Trees and Shrubs

Botanical Name	Common Name	SITE	FORM	HEIGHT (metres)				TOLERATES					NOTES
		Plains Downs Hills	Tree Shrub	0-1	1-3	3-5	5+	Sun	Shade	Moist	Dry	Wind	(Key below)
Aristotelia fruticosa	mountain wineberry	H	S		✓			✓	✓				QB
A.serrata	wineberry,makomako	PDH	T			✓	✓	✓	✓	✓			QBFA½DWT
Carmichaelia arborea	native broom .	P	TS			✓		✓		✓		✓	
Carpodetus serratus	marbleleaf,putaputaweta	PDH	T			✓	✓			✓			QAFU
Cassinia fulvida	golden cottonwood	PDH	S		✓			✓			✓	✓	QAH
C.vauvilliersii	mountain cottonwood	P H	S		✓			✓			✓	✓	STH
Coprosma acerosa	sand coprosma	P	S		✓			✓			✓	✓	WB
C.brunnea	brown-stemmed coprosma	H	S	✓				✓			✓	✓	WB
C.areolata,Ccrassifolia,C.linarifolia, C.petrei,C.rhamnoides,C.rotundifolia, C.rigida,C.rubra,C.virescens	small-leaved, twiggy, coprosmas	PDH			✓	✓		✓	✓		✓	✓	WB
C.parviflora,C.propinqua	mingimingi	P H	S	✓	✓	✓		✓	✓	✓	✓	✓	SWB
C.robusta	karamu	D	S			✓		✓	✓				AQ B
Corallospartium crassicaule	coral broom,sticks	H	S		✓			✓					U curious
Cordyline australis	cabbage tree	PDH	T				✓	✓	✓	✓	✓	✓	LSFUW
Corokia cotoneaster	korokio	PDH	S		✓			✓			✓	✓	QHSFBW
Cyathea dealbata,C.smithii	ponga,tree ferns	D	T			✓		✓	✓	✓			AL
Cyathodes colensoi,C.fraseri	heaths,patotara	H	S	✓				✓	✓	✓			A PFB
Dacrycarpus(Podocarpus)dacrydioides	kahikatea,white pine	PDH	T				✓	✓		✓		✓	JS U
Dicksonia fibrosa	woolly tree fern	H	T			✓			✓	✓			Q AL
Discaria toumatou	matagouri	PDH	S					✓			✓	✓	S
Dracophyllum longifolium	Inaka,grass tree	DH	S		✓	✓		✓	✓	✓			U L
D.pronum,D.uniflorum	turpentine shrub	DH	S	✓				✓	✓	✓			L
Elaeocarpus dentatus	pokaka	PDH	T				✓	✓					J U F
Fuchsia colensoi	shrub fuchsia	DH	S										W
F.excorticata	fuchsia,kotukutuku	DH	T				✓	✓	✓	✓			QAWD
Gaultheria antipoda	snowberry	H	S	✓				✓		✓			FA B
G.crassa,G.depressa	creeping snowberry	H	S	✓	✓			✓		✓			F B
Griselinia littoralis	Broadleaf	PDH	TS				✓		✓	✓	✓	✓	Q SHA L
Hebe allanii,H.amplexicaulis	Mt.Peel hebes	H	S	✓				✓			✓		F
H.cheesemanii	semi-whipcord hebe	H	S	✓				✓			✓		F
H.odora(H.buxifolia)	Boxwood	H	S	✓				✓			✓		
H.buchananii		H	S	✓				✓			✓		A F
H.pimelioides		H	S	✓				✓			✓		F
H.salicifolia	koromiko	PDH	S		✓	✓		✓	✓		✓	✓	QAFSHL
Helichrysum glomeratum.H.selago	everlasting daisy shrubs	P H	S	✓	✓			✓			✓	✓	F
Hoberia angustifolia	narrow-leaved lacebark	PDH	T				✓	✓		✓	✓	✓	QSFUAJ
H.lyallii	mountain ribbonwood	H	T			✓	✓	✓	✓				AFLD
Leptospermum ericoides	kanuka,teatree	PDH	T				✓	✓			✓	✓	QSFUHA
L.scoparium	manuka,teatree	PDH	T			✓		✓			✓	✓	QSFUHT
Lophomyrtus obcordata	rohutu	PD	S			✓		✓	✓	✓	✓	✓	QSFUHB
Melicope simplex	poataniwha	DH	ST		✓			✓	✓		✓	✓	SUH
Melicytus micranthus	manakura	D	S		✓			✓	✓	✓	✓		S U
M.ramiflorus	mahoe,whiteywood	PDH	TS			✓	✓	✓	✓			✓	STAWL
Metrosideros umbellata	southern rata	H	TS			✓	✓		✓			✓	F. slow
Myrsine australis	matipou,mapou,red matipo	PDH	TS			✓	✓	✓	✓		✓	✓	QA UHW
M.divaricata		PDH	S		✓			✓					~~stiff~~
M.nummularia	creeping matipo	H	S	✓				✓		✓			B
Muehlenbeckia axillaris		H	S	✓	✓			✓			✓	✓	BH wiry W
Neomyrtus pedunculata	rohutu	PDH	S			✓							

Q = quick growing ; J = juvenile form persists ; S = shelter value ; H = hedging value ; W = wildlife value ; U = upright ;
D = deciduous ; F = flowers showy ; B = berries showy ; L = leaves bold ; P = perfumed ; A = attractive ; T = temporary

Botanical Name	Common Name	SITE: Plains / Downs / Hills	FORM: Tree / Shrub	HEIGHT (metres): 0-1	1-3	3-5	5+	TOLERATES: Sun	Shade	Moist	Dry	Wind	NOTES (Key below)
Nothofagus menziesii	silver beech	H	T				✓	✓					H A U
N.solandri	black beech	D	T				✓	✓					F U
N.sol.var.cliffortioides	mountain beech	H	T				✓			✓			A U smaller
Olearia arborescens		H	S			✓		✓					
O.avicenniaefolia		D H	T S		✓	✓		✓			✓	✓	Q S H F L P
O.ilicifolia	mountain holly	D	T S			✓	✓	✓					Q L F
O.lineata, O.virgata		H	T S		✓	✓		✓		✓		✓	S H P U A
O.odorata		H	S			✓		✓					F P
O.paniculata	akiraho, golden akeake	P	S			✓	✓	✓					Q S H L
Parahebe lyallii			S	✓					✓	✓			F
Paratrophis microphylla	turepo milk-tree	D H	T			✓	✓			✓			
Pennantia corymbosa	kaikomako	D H	T				✓	✓		✓			A U J F
Pentachondra pumila		H	S	✓					✓				F
Pimelea oreophila, P.pseudo-lyallii, P.traversii	daphnes	H	S	✓				✓			✓	✓	F
Pittosporum eugenioides	lemonwood, tarata	D H	T			✓	✓		✓				Q A S H F P W L
P.tenuifolium	kohuhu, black matipo	D H	T S			✓	✓	✓	✓	✓	✓	✓	Q S A H P W
Plagianthus betulinus	ribbonwood, manatu	D H	T S				✓	✓		✓	✓	✓	Q J S D F U W
Podocarpus nivalis	mountain totara	H	S	✓									H
P.spicatus	matai, black pine	D H	T				✓	✓	✓	✓			J. timber W A
P.totara	totara	D H	T			✓	✓	✓	✓	✓	✓	✓	S H timber W
Pseudopanax arboreum	five-finger	D H	T			✓	✓	✓	✓		✓	✓	Q S B L W A B F
P.colensoi	mountain five-finger	H	T S			✓	✓	✓	✓			✓	L A P B
P.crassifolium	lancewood	P D H	T			✓	✓	✓	✓		✓	✓	Q S U L J B
P.ferox	toothed lancewood	P	T				✓	✓					J U L F
P.simplex	haumakaroa	D H	T S			✓	✓		✓				J
Pseudowintera colorata	peppertree, horopito	D H	S		✓			✓	✓	✓		✓	H L bitter
Schefflera digitata	pate	D H	T S		✓	✓			✓	✓			½ D L W
Solanum laciniatum	poroporo	D H	S			✓							B L F
Sophora microphylla	kowhai	P D H	T			✓	✓	✓		✓	✓	✓	J S ½ D F W
S.prostrata	prostrate kowhai		S		✓			✓			✓	✓	wiry
Teucridium parviflorum		P D	S		✓			✓					U

2. Climbers

Clematis foetida	scented clematis	D H	5+					✓	✓			✓	A F P
C.marata , C.afoliata		P	scrambling					✓	✓				F P
C.paniculata	bush clematis	D H	5+					✓	✓				Q J A F P
Metrosideros diffusa	climbing rata	D	low, or to 6 m						✓	✓			F
Parsonsia capsularis, P.heterophylla	kaihua, maori jasmines	D H	to 10					✓	✓				Q A J B F P
Fuchsia perscandens	scrambling fuchsia	D						✓					F W
Senecio sciadophilus	yellow daisy climber	D H	low, or 3–5 m						✓				Q F

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3. Herbaceous Plant

FLAXES
Phormium cookianum, P.tenax
Astelia fragrans, A. nervosa

SEDGES
Carex spp.
Uncinia spp. esp. U.uncinata

GRASSES
Chionochloa spp. snow tussocks
Cortaderia richardii toetoe, toitoi i
Festuca novae-zelandiae Fescue
Poa colensoi P. caespitosa tussocks

MAT PLANTS
Acaena microphylla piripiri
Anisotome aromatica kopoti carrot
Cotula squalida, C.atrata, C.maniototo
Phyllachne colensoi cushion plant
Pratia angulata panakeke
Raoulia spp. mat daisy

FLOWERS
Bulbinella angustifolia maori onion
Celmisia spp. mountain daisies
Helichrysum bellidioides everlastings
Libertia ixioides N.Z. iris

FERNS
Asplenium spp.
Blechnum spp.,
esp. B. pennamarina
Phymatodes diversifolium
Polystichum richardii

Always propogate from a local source, using seed, cuttings or forest duff. Do not dig up plants from their natural habitat.
Avoid coloured forms - golden, purple, variegated, etc.

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