CHAPTER 1

Why Design?

What is the purpose of planting design? Plants grow in great quantity and diversity in all sorts of places without, often in spite of, our attentions, so it is quite reasonable to question the role of planting in environmental planning and landscape architecture.

The answer is, I believe, threefold. First, landscape design helps us to make the best use of our environment. A landscape that is truly functional is one that provides for breadth of use and human involvement, rather than narrow exploitation or segregation by a single interest. Planting design is an essential element in making and managing this kind of people-place. Words such as liveliness, complexity, subtlety, resilience, flexibility and sustainability all help to describe the design potential we can unlock with intelligent planting.

Second, planting design helps us to restore and maintain a sustainable relationship between people and their environment in a context of change. It does this by helping to conserve valuable ecological systems and in creating or reconstructing habitats. It also helps simply by introducing green space where before there was only grey space.

Last, but not least, planting design offers aesthetic delights as complex and intense as those found in galleries or exhibitions. Its aesthetic impact can be thought-provoking, soothing, exciting and so on – according to the intentions of the designer and the state of his or her soul. In the realm of the senses, the sights, scents and sensations of plants, even the sound made by wind and rain in leaves and branches – all these add to the quality of daily life. Such aesthetic quality is often hard to quantify, but its effect on well-being can be profound.

These three reasons for planting design – use, ecology, and aesthetics – are not independent. Consider a landscape that gets its basic spatial order from the demands of cultivation and husbandry. A classic example of this was the English countryside of hedged fields, which arose largely from the enclosure of open fields in the eighteenth and nineteenth centuries. This ordered framework provided not only containment and shelter for stock but, as it matured, became an extensive and diverse wildlife habitat. As well as its role in farming and wildlife the English countryside became one of the nation's great assets, attracting tourists from around the world and representing a key part of the national identity. It signified a benign balance between production, nature and beauty. However, its integrated character is now fading fast under extreme pressure from modern farming techniques and urban development.

Without forgetting the interrelationships, let us look a little more closely at each aspect in turn.

Planting Design – an Expression of Function

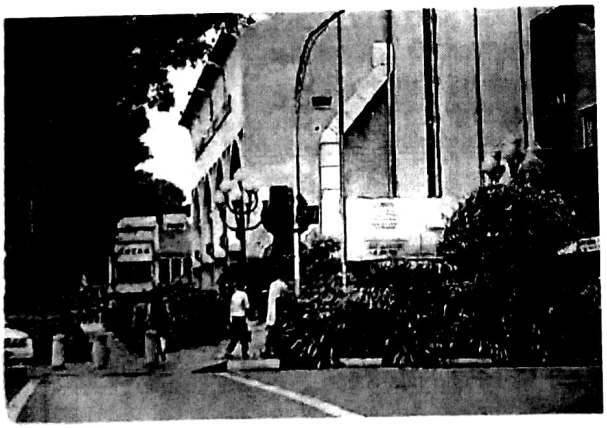
Throughout history the arrangement and cultivation of plantings has expressed human use of the land. This has been the case not only with the cultivation of food, timber and other crops but also in planting which was intended not for economic production, but for recreational use. The forms of the earliest pleasure gardens in Persia were adapted from the agricultural landscape of the fertile river plain with its irrigation canals and regularly spaced fruit trees. In eighteenth- and nineteenth-century England, hedges planted to enclose fields were planned to improve farming efficiency and increase profits. The shelter, containment and image of productive order that these hedges provided also helped to give the English pastoral landscape a distinctive scenic character. The relationship between usefulness and aesthetic reference is demonstrated by the common structural role of the hedge in English gardens and parks from the nineteenth century onwards. The garden hedge is an echo of the hedged enclosures of the English lowland countryside – it performs a related role, but on a smaller scale.

The character and purpose of planting design is as varied as human use of the land. The landscape designer allows for all kinds and levels of activity ranging from rare visits to private or near inaccessible landscapes to intensive multiple use of the public realm in urban centres. Planting design has a role in the landscapes where we live, play, work, study, gather for community functions, and where we enjoy our leisure. All these places need an environment that fits and facilitates our needs. It must provide the right amount of space, the right microclimate and the right scale and character, as well as specific facilities like a path, a seat, lighting and so on. To make a comparison, the furniture designer creates a seat to sit on; the planting designer creates a place to sit in. The planting is part of an environment that fits the function.

Many activities require buildings, roads, car parks, waterways and other built structures. Planting design is much more than a cosmetic treatment to be applied to indifferent or insensitive architecture and engineering in order to 'soften' the harsh edges or disguise an awkward layout. It plays a major role in integrating structures in the environment by reducing their visual intrusiveness, by repairing damage to existing ecosystems and, more positively, by creating a setting which is comfortable, attractive and welcoming. New planting, as well as conservation of existing, is an essential element in good site planning for many types of land use.

If well designed, planting is an apt expression of function and of the needs of the users. A children's play area makes a good example. The basic provision of equipment like swings and climbing structures allows children to engage in activities, but it does not create the best environment for play. This needs more. It needs a defined and welcoming place, separation from traffic for safety, segregation of boisterous from quiet play, enclosure for shelter and – to give older children a sense of independence – opportunities for discovery and adventure, and the raw materials for creative and fantasy play. All of these can be provided by planting. Shrub planting can enclose, shelter and separate, but trees and shrubs also create a whole environment which can be explored, where dens and tree houses can be built, where there are trees to climb and swing from, and where plants and animals can be discovered. Play planting would need to be robust, varied and vigorous and quite different from the kind of planting that would be right in a communal garden for the elderly or in a busy urban centre precinct.

One of the major challenges of environmental design is the accommodation of several different functions within any single area. Environmentally sensitive



Plates 1, 2 and 3 Planting design makes an essential contribution to an environment fit for living (housing court, Sheffield, UK; Birchwood Boulevard Technology Park, Warrington, UK, and city street, Singapore).

Plate 4 Without planting, retaining structures of this scale would be dominating and intrusive. The planting makes them an asset to the local environment while emphasizing their sculptural form (Munchen Gladbach, Germany).

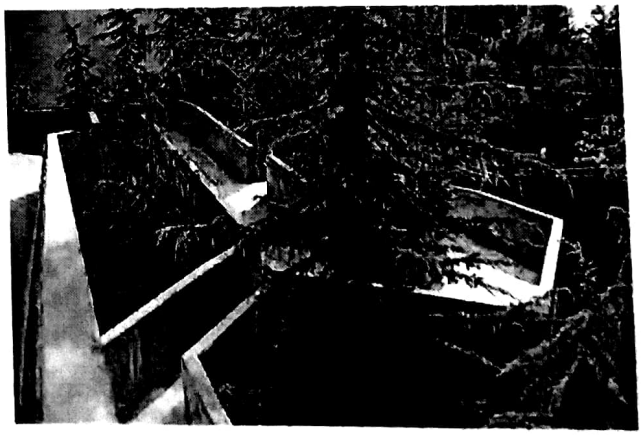


Plate 5 Tree planting integrates and complements structures at the Paul Piggot Memorial Corridor, Seattle, USA.

Plate 6 Planting helps to create an environment suitable for children's play by providing a comfortable microclimate, the sense of special place, and plenty of robust trees and shrubs for climbing, swinging and imaginative play (Warrington, UK).

forestry practice provides a good example of how recognizing multiple-use requirements has led to more sophisticated design. Early plantations had narrow objectives. They were laid out and managed purely for commercial efficiency, exploiting the maximum available land for timber production. Little or no attention was paid to visual amenity or to habitat conservation. However, increasing recognition of recreational uses, visual amenity and the need for wildlife conservation has led to forestry being more sensitively sited, the inclusion of indigenous species along the visible and accessible edges, and the retention of valuable existing habitats within the forest area. Production forestry development now often includes attractive picnic, walking and wildlife study areas.

So good planting design endeavours to provide for all the uses of a place and to respect the needs of all the users.

Planting Design as Management of Natural Vegetation Processes

There are circumstances in which the natural processes of colonization and succession of vegetation will be enough to repair the loss of the ecosystem, or to make an environment suitable for human need and activities. Spontaneous colonization of vacant urban sites, for example, can result in attractive urban commons that are enjoyed by children, dog walkers, blackberry pickers and naturalists; a road cutting in a rural area can be a home for colourful wildflowers and become a diverse meadow or scrub community.

Landscape designers mostly become involved when natural processes need some assistance or management, for example, to speed up the colonization process, such as on a denuded steep slope which would otherwise erode; or to direct the succession by planting particular species to increase diversity in a young woodland community. These are both examples of managing natural vegetation processes and the intervention is restricted to what is necessary for the site to function. In these cases there is no need to supplant the spontaneous 'natural' plant community with an imposed, planted one. Indeed, there might be good aesthetic reasons for using the spontaneous, indigenous colonizers that reflect the local character or make a better habitat for wildlife.

Most planting design, however, involves a much greater degree of control over natural processes. The extreme case is a highly manicured garden of exotic and tender species that could not exist without constant horticultural intervention. This kind of completely artificial planting is appropriate in the right setting; it is not intrinsically better or worse than the minimum intervention, ecological approach.

Plate 12 A high degree of control over natural vegetation processes is demonstrated in this highly manicured display of hybridized and selected flowers at Gruga Park, Essen.

Good design means choosing the kind of planting and management that is appropriate to the site and its uses. This will often mean the one that requires the lowest level of intervention in natural processes necessary for the planting to meet the design objectives. There are two reasons for this. Firstly, it will cost less, because less labour and material resources are used. The second is more debatable. It depends on our perception of the environment, and what about it we value most highly. If we accept the environmental ethic that nature is intrinsically valuable then we will take the opportunity to allow spontaneous vegetation to develop with minimum intervention. This is not to say that we should take the ecological approach everywhere, only that we should not replace it with a horticultural landscape without reason.

Both planting design and its subsequent care can be understood in the broadest sense as management of natural vegetation processes. Different types of planting merely need a greater or lesser degree of intervention to establish and maintain the 'target' plant community. Our purpose should be to understand and work with natural processes so as to fulfil the functions of the planting.

Planting Design for Aesthetic Pleasure

Aesthetic pleasure is an important objective of planting design. Planting offers enjoyable sensory experiences and creative opportunities for art and design. The idea of pleasure is deliberately and often falsely associated with consumer products and lifestyles – this is a successful technique for stimulating demand, but the products and experiences rarely live up to their billing. In reality, the consumer culture is one which often frustrates genuine delight. With landscape and planting design we aim to create an environment which can help people to live fulfilling and enjoyable lives. The pleasure of a lovingly tended garden or of contact with wild plants can contribute a lot to our daily well-being and foster a genuine recreation of the spirit.

What is Successful Planting Design?

We have identified three main purposes of planting design: functional, ecological and aesthetic. The extent to which a design serves these purposes can be used to judge its success.

Of course, different planting projects will have different priorities and these should be reflected in the attention given to meeting the functional, ecological and aesthetic requirements. Take shelter planting for an exposed site as an

Plate 13 This shelterbelt in north-west Scotland combines effective wind speed reduction, habitat diversification and visual harmony with the local landscape. It provides the microclimate needed for the cultivation of a wide range of plants in Inverewe Gardens, Scotland.

example. Its primary objective will be effective shelter and improvement of the microclimate of the site. The character and aesthetic qualities of the vegetation can best be considered once we are confident that we can provide the technical necessities of optimum wind permeability and aerodynamic profile, conserve valuable habitats and take any opportunities to create new ones. A successful shelter planting will thus

1. reduce wind speed and turbulence over the required distance,
2. improve, or at least not damage, the ecology of the locality and
3. make an aesthetic contribution to the place and the project.

The criteria of functional performance and ecological fitness can be assessed more objectively than aesthetic value. In other words, there is more likely to be disagreement on aesthetic criteria because views about what is visually successful or desirable vary enormously. This is the case not only with different people's opinions, but with one person's taste and views, which can change significantly during their lifetime (many critics and designers are good examples of this). The kind of environment we like or need can also vary from day to day according to mood. It is this variability and the personal element of judgement that leads to the popular notion that design is subjective.

When assessing the success of planting schemes, designers certainly should ask themselves if they like it, and should evaluate and reflect on their work. To review the aesthetic impact of a planting design, we need an understanding of the aesthetic characteristics of plants and the affects of these in planting composition. This is the subject of Chapters 3 to 7.

In addition to our own analysis, we should ask if the client and the users like it: does it satisfy their needs and aspirations? The likes and dislikes of the client and the users of landscape can be different from that of a trained designer and part of our professional role is to understand and provide for their preferences and needs. As designers we might have distinctive styles and firm opinions, but when we are engaged as professional consultants, our first duty to the client is to achieve a landscape which is successful in their terms.