

Landscape Issues

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LANDSCAPE ISSUES

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EDITORIAL

NEW ISSUES, NEW MISSION

There comes a time in the life of a journal when the image (and sometimes the content) must change. *Landscape Issues* has had a good run with its familiar A5 house style since its inception in 1984. Its editorial has by and large reflected the activities of the staff and students of the Cheltenham School, with its strong focus on matters educational and academic.

The editorial board has decided to develop the journal in ways which are both cosmetic and substantive. The cover format will change, but more importantly we see the publication attempting to bridge the gap between the Profession, which has *Landscape Design* as its mouthpiece, and the Schools, the academic activity of which is mainly represented by *Landscape Research*.

Content, therefore, will be more wide-ranging, covering items from landscape schools, practitioners in Europe and North America, letters, current research in progress, and at least one refereed article of significant academic research. Shorter articles on topics of general interest will continue to be published as at present, so too reviews of books, conferences and so on. There will be no advertising (or not until we have to include it).

It is hoped that these proposals will generate a new distinctiveness and a fresh interest in *Landscape Issues*, since the dialogue between theory and practice is potentially very valuable, particularly in terms of links and developments, both in the Profession and in the education of landscape architects.

Robert Moore

THE COMMON SCENTS OF LANDSCAPE

It is thought that the typical British adult spends about 5% of his or her life outdoors. In this context, it is worth asking the question: What is landscape for?

Clearly not, for most of us, for living our lives in. For a lot of us it seems to be important not 'for real' but as backdrop, behind our fairly thoroughly staged lives. It has, of course, been real for all of us at some time: we all revisit landscapes in the virtuality of memory and dreaming. But from day to day it is something that is, as much as 'for real', likely to impinge on our lives as television film scene or advert location, perhaps as a glance at the souvenir calendar – at best in a nod at the garden on the way to the car. It is more likely to be 'image' than the park with us walking the dog in it, or the allotment with us digging in it – hardly at all likely to be the hillside with us backpacking across it, come sun, come rain.

We may pretend that much of our life is spent out there; indeed we fool ourselves into believing it – but we are still within doors. The doors are to boxes on wheels, and the landscape is a sort of moving wallpaper seen through a sheet of glass. Not a new observation: as Robert M Pirsig points out,

in a car you're always in a compartment, and because you're used to it you don't realize that through the car window everything you see is just more TV. You're a passive observer and it is all moving by you boringly in a frame.

This was his 1974 'Inquiry into values', *Zen and the art of motorcycle maintenance*, a book which is usefully being rediscovered; but he was perhaps a little over-enthusiastic:

On a cycle the frame is gone. You're completely in contact with it all. You're *in* the scene...

But still the sound of the i.c.e. and of the tyres on tarmac grabs the ears before the more subtle sounds of the land. Moreover, we are so constantly saturated – from birth – with artificial smells that most of those of the rest of Nature fail to reach our consciences. (Do they reach our unconsciousness: can you recognise your partner, or your child, or your own clothing, by smell?)

Some of us, of course, are parts of the scene, living or working on the land. *That* is for real. Yet that is only a few percent of the population. The rest of us usually have to *remember* things like where most of our food and fibre comes from. We are not, in the ache-in-the-back, soil-in-the-pores sense, *part of* the land (even though we cannot yet escape being so ecologically!). Nor for most of us – as adults – is the land an important aspect of any *play* that we make. That's for kids...

Nor are most of us part of the landscape that we are so concerned to make and manage. If landscape is not part of your life – I mean part of your work, part of your play – if it is not the places you have helped *make*, what concern will you have for those called landscape architects who strive to make places for you? Probably little. You may not even

know they exist.

Why are we surrounded by such poor landscape architecture? Is it because landscape architects – along with most of the rest of us – do not *belong*: do not *dwell*, as Heidegger wants it? They have not gained the ache-in-the-back or soil-in-the-pores by the making of it. Theirs is not an outdoors task!

Ours is an indoor culture. Not, of course, entirely, but predominantly. It is an urban-oriented culture – again, not entirely, but predominantly, and increasingly so; and our cities are most important to us because of the boxes they contain, and the boxes that travel from box to box, in which we contain over nine tenths of our lives. The bits in between – the landscape – when given any serious attention are secondary.

Need it be so? With interest in 'sustainability' developing, one might hope that more emphasis will come to the outdoors. Landscape, when given serious attention, could cease to be either just functional or just cosmetic, as we realise that it is made of land that still sustains us (or 'holds us up', to use the vernacular).

Perhaps things will change. Perhaps landscape architecture will not be so strongly an indoors activity. There will perhaps be a change in education. We may need courses (modules) with such titles as 'Wind and rain; snow and sun', 'Turning the soil', 'The landscape after dark' and 'Smells of the land'.

Martin Spray

TRANSFORMATION OF THE COUNTRY LANDSCAPE IN POLAND OVER THE LAST FORTY YEARS

Zuzanna Borcz

Introduction

The rural landscape undergoes continuous transformation, although compared with the changes in towns or in industrial districts it is often very slow. It is generally felt – a feeling based on tradition, painting or literature – that the countryside is still associated with calm, greenery, houses surrounded by gardens, where the silence is interrupted only by domestic animals, and where inhabitants take up traditional farm activities. Urban inhabitants, tired of noise and bustle, dream of such an idealised, traditional, landscape as a place for recreation after their work.

In the present dynamic development of farm-based tourism, special attention is being paid to the rural landscape: to both the countryside overall and to farms, buildings, manor parks, squares etc. Tourists like to spend their holiday time not only in the open, but also taking part in farm activities: they are interested in getting involved with the everyday cycle of farmers' work.

Such characterisation of agrotourism requires suitable scenery and surroundings which will secure for village guests not only fresh, healthy air and clear water, but also the aesthetic experiences derived from the beauty of the countryside. It is important to maintain the cultural landscape where the anthropogenic factor plays a considerable role. The preservation and protection of such landscape is always subject to numer-

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ous risks, and requires constant supervision by local authorities, as well as – and this is most important – an understanding of village inhabitants.

In the analysis of transformations observed in the rural landscape, a few principal elements should be highlighted:

- a. farm or manor buildings connected with agricultural production;
- b. dwelling houses and non-agricultural public buildings such as churches, schools, shops;
- c. communication routes and structures, roads, bridges, paths, parking areas;
- d. small architectural elements, e.g. way-side shrines, monuments, enclosures, walls, fences, or hedges;
- e. verdure near by houses, in parks, gardens, alleys;
- f. rivers, streams, ponds, small drinking fountains in settlements or in parks.

Farm Buildings

The farm building is the most important element of the country landscape, as the farm has for centuries been considered as a major village component. Changes to the farmhouse have always been going on, but they were rather slow up to the beginning of this century, and they have intensified in recent decades. First, the number of farm units in a village is seen to be declining because of the mechanisation of agricultural processes, and fewer farmers are now needed for the existing cultivated areas; therefore some inhabi-

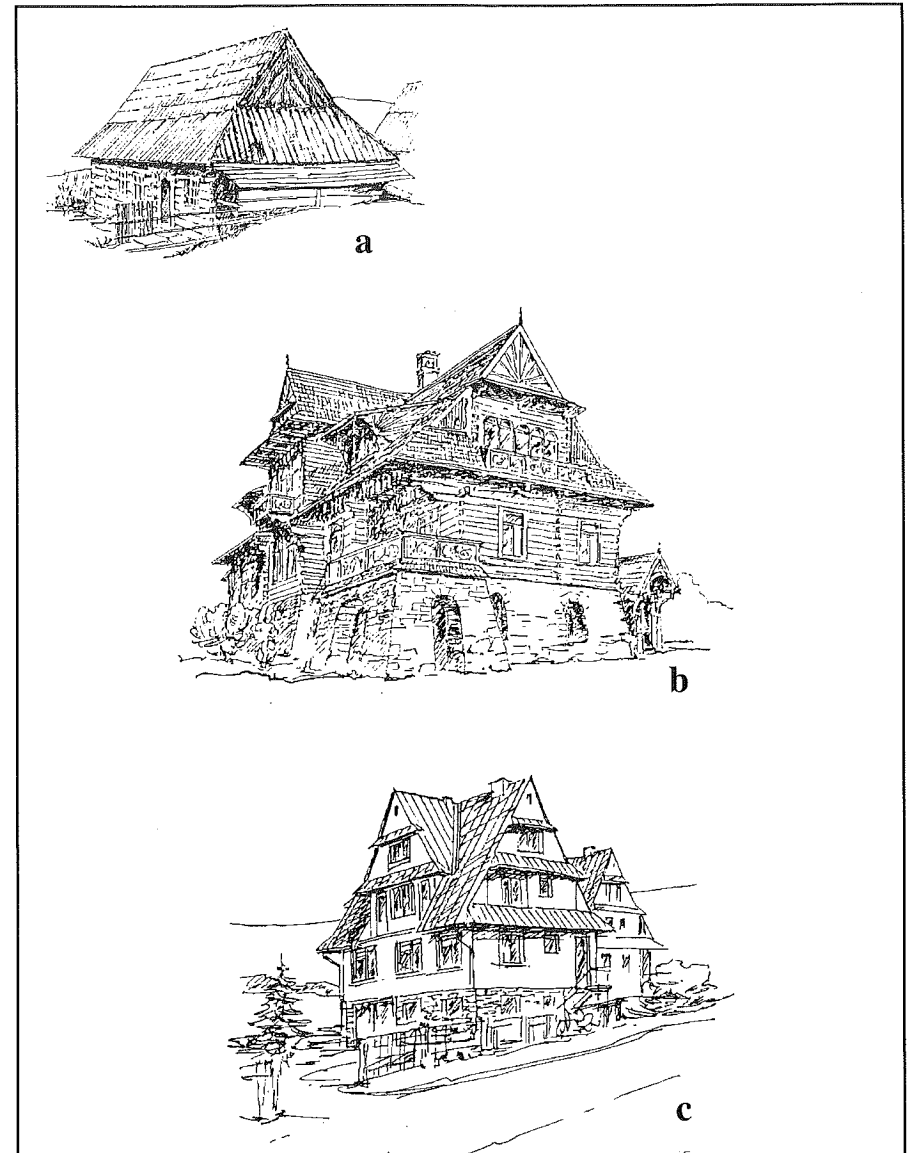


Figure 1 An example of the development of regional architecture in the Podhale region, Zakopane district, showing changes in the materials, decoration and proportions of the buildings.

- a. Old house, Plazowka village near Zakopane, 19th century.
- b. Residence 'Fir-trees' in Zakopane, designed 1897.
- c. Present-day house.

tants undertake other, non-agricultural work, and, as a result, the farms lose some of their agricultural character. Second, changes are observed in the agricultural technology itself, in both plant and animal production. For example, cereal production, because of the use of combine harvesters, now takes place entirely in the fields. Traditional barns are no longer necessary, but in their place silos for storing grain and fodder have appeared while baled straw is stored in the fields in stacks.

The above factors strongly influence the shape of farms: buildings change their function, and the pressure increases for their adaptation and reconstruction. A considerable number of farm buildings are adapted for housing; as a result it is necessary to make new windows and replace doors, as well as to transform their immediate surroundings, for instance by introducing porches, fences, and gardens.

Dwelling Houses

Besides the existing farms, there are new buildings in the village, mostly houses for people not employed in agriculture. These are erected on small building lots, resulting in their considerable size disturbing the proportions of volume and density between buildings and their surroundings. The traditional garden and orchard near the house is reduced to a lawn at the entrance, a small kitchen garden and some dwarf fruit trees. This arrangement of house and surroundings is similar to the urban pattern, imposed by limited space. In the country, such a situation seems rather illogical and unsatisfactory.

Regional Architecture

In a discussion of rural landscape, it should be pointed out that regional architecture is of significance, and that architectural mon-

uments need protection, for example by creating Skansen Museums. (These are places where wooden buildings of some monumental value have been relocated – or rebuilt – in open-air situations enabling visitors to study them among the trees and greenery. Various types of buildings have been thus conserved: dwelling houses, barns, water-mills, small churches...) Many village structures deserve a conservator's protection; in practice, however, many of them are being demolished, or renovated in such a way as to destroy their original forms. The problem of the preservation of traditional forms in village architecture should be emphasised here. Unfortunately only in a few villages has it been possible to preserve the regional building enclaves and to consider them as models for future development. A positive example of facing these problems may be seen in Podhale, and especially the Zakopane District. Here, up to the present day, buildings have been erected in the regional style. The maintenance of a distinct architectural character is connected with the history of Zakopane, where at the end of the 19th Century the area's therapeutic climate was realised, and numerous new houses and sanatoria were built (Figure 1).

The application of the so-called Zakopane style in other regions of Poland has brought both benefits and disadvantages. In Podhale villages, the regional character of the architecture is generally preserved. Here there exist beautiful examples of dwelling houses built in a traditional way by competent local carpenters, as well as sacred buildings, sanatoria, hotels and guest houses designed by architects. However, the regional building regulations, especially those concerning the geometry of sloping roofs, have not prevented architects from designing some peculiarities unfamiliar in the countryside. Some houses have too high a roof pitch; buildings may have quite wrong proportions, being built too tall or with above

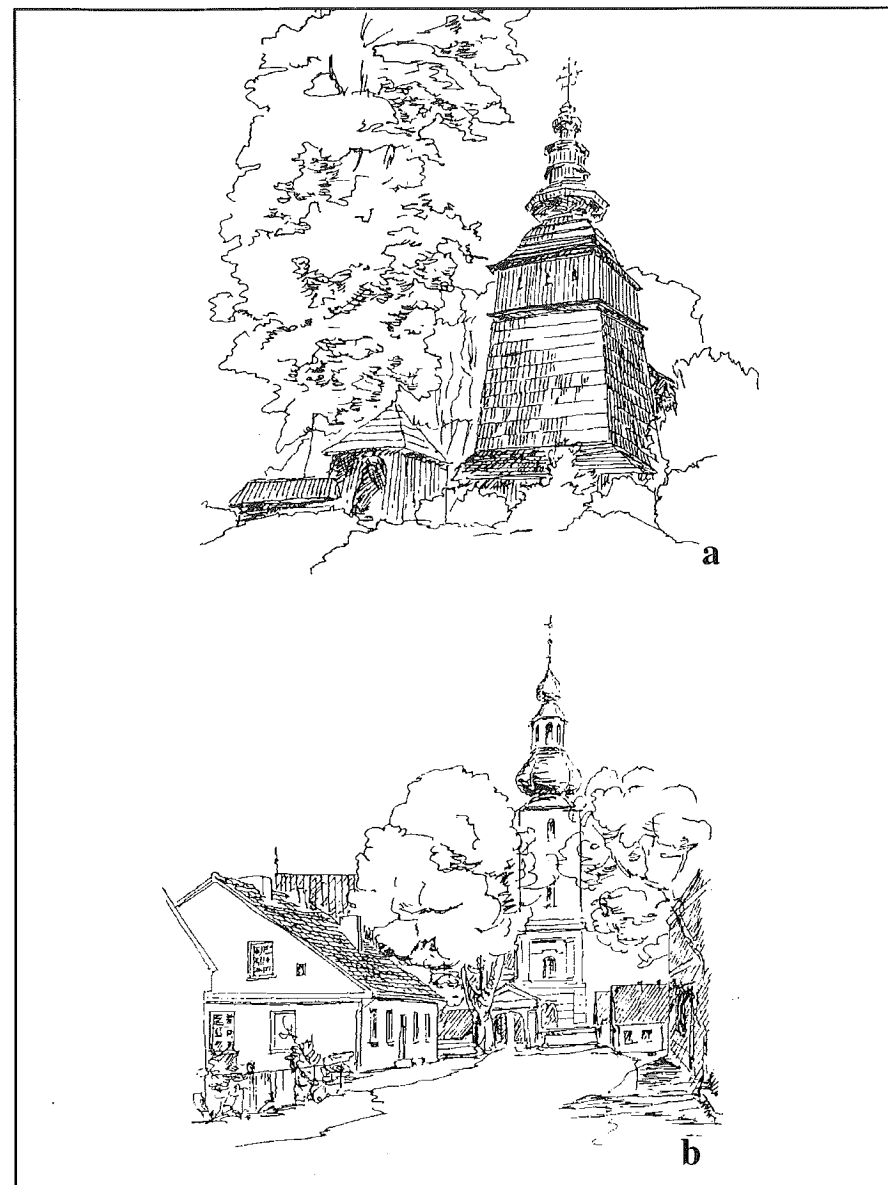


Figure 2 A village church. The steeple is here a dominant feature in the village.
 a. The wooden orthodox church, 18th century, now the Catholic church, Kotan village, near Krosno.
 b. The church as a closure of the perspective of a village road, Brzezia Laka village, near Wrocław.

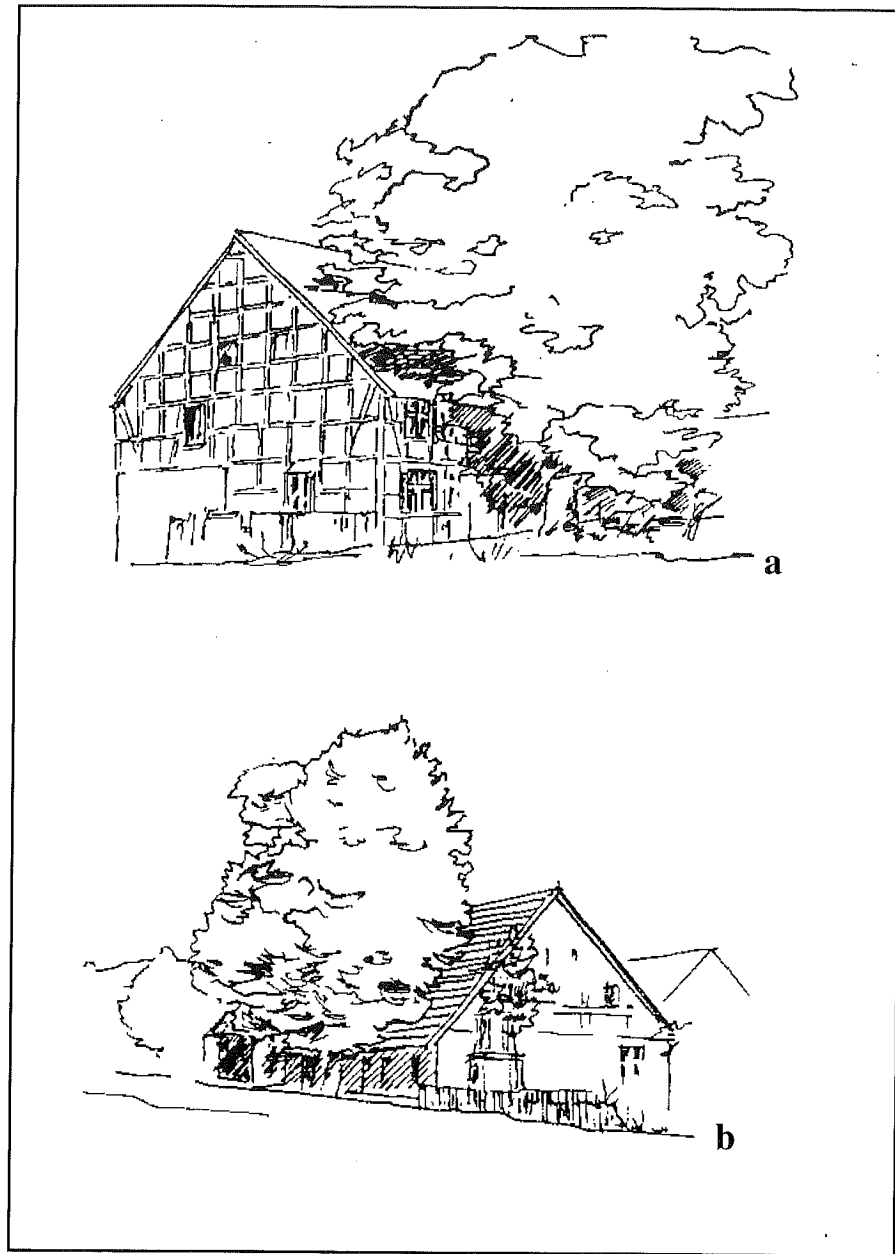


Figure 3 Examples of farm greenery/vegetation. A big tree dominates the house.
 a. Ryszewo village, near Pyrzyce.
 b. Katna village, near Wrocław.

ground 'cellars' or concrete loggias and balconies on the ground floor. Although in principle the regional architecture may serve as an inspiration for new designs, what is the value of the continuation of a tradition, when the use of some chosen elements does not give the desired results?

Big Farms

The economic continuity of large farms (between 200 and 800 hectares) has been interrupted by socio-political changes after the Second World War; they were privately owned before 1939 but have been nationalized since 1945.

The buildings of these farms not only had different owners but often their functions have been changed. Palaces and manor houses became the property of state farms, or sometimes they were taken over by schools or other institutions. As a result of political events since 1980, large state farms have been returned to private ownership or have been taken over by various companies. The profile of agricultural productions has been altered in order to comply with actual market requirements. Buildings of large farms are sometimes adapted for non-agricultural purposes such as warehouses or wholesale establishments.

A similar situation is observed in the case of dwelling houses. These may leave the administration of state or collective farms and return to their previous owners who are seldom prepared for this role. Relatively few buildings are repurchased by individuals for conversion to dwellings, hotels or guest houses.

The above changes are seldom to the benefit of the country landscape; buildings and their surroundings are now rarely designed to reflect traditional forms and arrangements.

Churches and Cemeteries

Among the public buildings closely connected with the rural landscape, the church plays a dominant role. The silhouette of the church, taller than other buildings, with a tower or a nearby campanile, can by itself give the village an individual character (Figure 2). The traditional church environment was a square in front of the entrance and a cemetery around the church. Village churches survived in good condition because of the involvement of inhabitants in systematic renovation and preservation works. In most cases the green surroundings of the church also survived, especially various kinds of trees, both native and exotic.

The church burial grounds nearly always are no longer used, but new cemeteries are established outside the built-up areas. Reminders of former cemeteries occur as old trees and small sacred structures such as chapels, shrines and crosses, fences and wicket-gates. These all make a significant contribution to the country landscape.

Parks and Village Verdure

Another green enclave which in many villages plays an important role in the landscape is the manor park associated with the residence of estate owners. The socio-political changes, resulting first in nationalisation of large farms, and then in their reprivatisation, have caused considerable destruction of these parks.

Where fragments of the parks' woodland and general layout remain, it may be appropriate to attempt restoration. However, this procedure involves high costs when a park is taken over by new owners.

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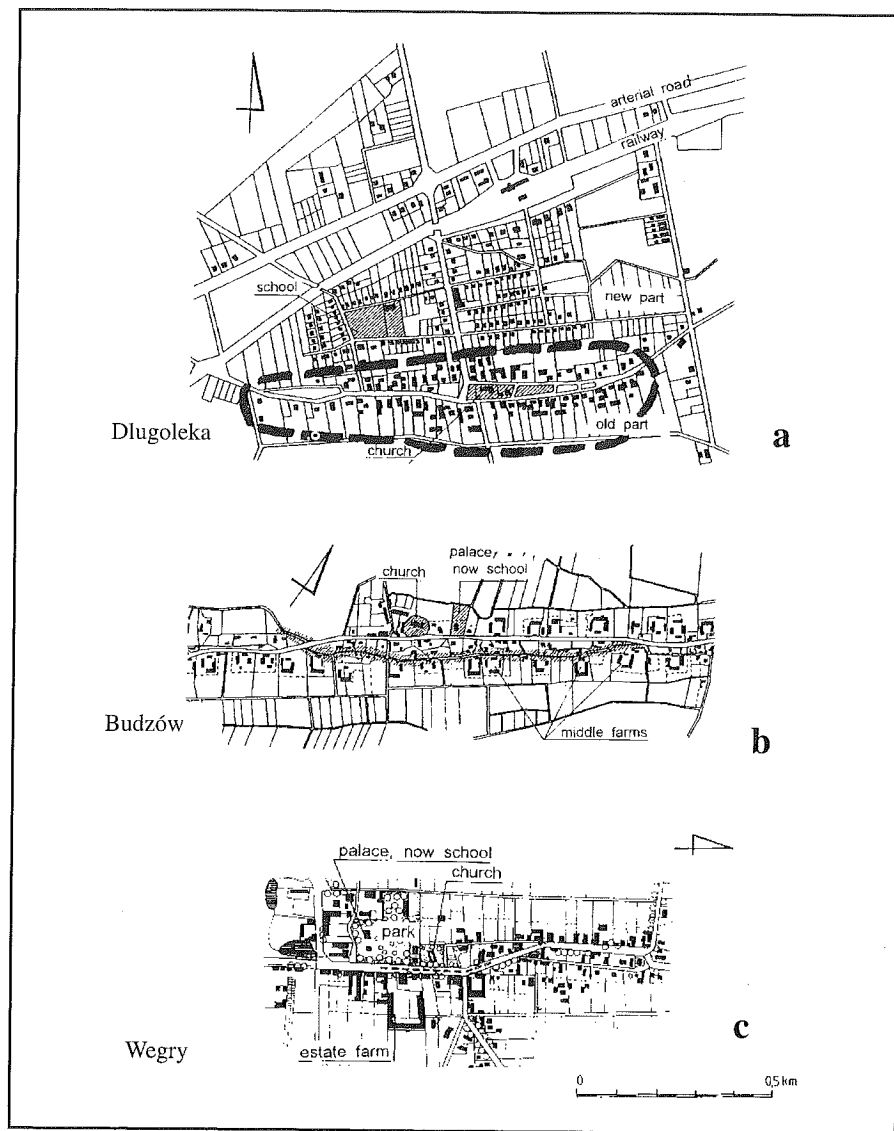


Figure 4 Transformations of village plans

- Suburban village near Wrocław, old part centred on the church, new developments around the school with limited green spaces.
- Part of a mountain village, linear in form, with farm areas reduced from 80 to 20ha.
- Village based on estate farm and palace, now converted into a school. The park serves both school and village public.

Along with parks and cemeteries, the vegetation of farms, transport routes and water also play an important role in the village. Traditionally, farmers planted on their building lots, besides fruit trees, a variety of deciduous trees which sheltered houses against wind, gave shade on hot days, and were a protection against the spread of fire. (Moist foliage decreases the heat and reduces the effect of flying sparks, particularly in the vicinity of thatched roofs and wooden walls.) Only a few examples of this typical rural picture of small houses with old spreading trees rising over them now survive (Figure 3). Unfortunately the custom of planting trees, or of leaving existing trees on building lots, is disappearing. The habit of establishing small building lots and the subdivision of former large farms does not favour the preservation of old trees: there is often a lack of space for greenery.

In the past, houses traditionally had small front gardens, that gave an appearance of extra width to the road. Railings, benches, low flower beds, decorative shrubs by the door – all this connected the houseplot to the wayside greenery to create a typical country scene. Today, due to increasing traffic, the garden is often protected by a hedge or a high wall, and instead of simple flower beds there is a lawn with a single conifer or shrub. In this way the road is separated from building lots and does not link with the inside of the gardens.

Water in the Landscape

The rural landscape is considerably influenced by surface water, which has played a dominant role since the settlement of a village. Linear villages formed along streams, and those with a central square were formed around one or more ponds.

Over the years, villagers used ponds and streams less and less. These sources were

replaced first by wells and next by piped supplies. It is now a long time since domestic washing was done in streams, or cattle were watered at the riverside or in a pond. Water mills are no longer used. For years an essential element of the country landscape, they were wooden or brick buildings with a characteristic big wheel. Now the old mills are adapted for dwelling purposes, or sometimes they become Skansen museums. The country as well as the town 'turns its back' on water.

Some remaining old reservoirs get a concrete lining, with no edge vegetation, but generally small ponds, waterlogged areas of ground and useless for farming, are drained and built over. The village's central square is disappearing, and in this way the spatial system of the village is destroyed.

Conclusion

The village environment is changing: motor transportation continues to grow inexorably and noise and atmospheric pollution is now of serious concern; many villages are transforming into dormitory settlements at the same time as there is a decrease in the agricultural workforce (Figure 4). This process of progressive urbanization cannot be easily stopped, but suitable policies may prevent needless damage to the characteristic spatial structure of a place/settlement. This is particularly critical in those rapid developments where open space provision – parks and squares – have not been included in the plans.

The traditional village landscape is disappearing as economic and technical development advances. It must be hoped that the new landscape coming into being will not be worse than the former one. An understanding of these problems will allow us both to preserve valuable elements of the landscape and to create its new shape.

SPIRIT OF THE LANDSCAPE: POSSIBILITIES OF ECOTOURISM IN THE NATIONAL PARKS OF HUNGARY

Ágnes Balog

*"Landscape can change the society
and improve the quality of life"*
[Frederick Law Olmsted]

Introduction

Tourists have always been interested in the wonders of nature. Today natural and semi-natural areas of the earth play an even more important role in tourism, since as leisure time has been increasing, people have become more mobile and able to visit them. Parallel to this tendency, natural ecosystems are disappearing at a frightening speed. This is caused by several factors – housing development, industry, insensitive agriculture – and not just tourism. But the conflict between nature and tourism undoubtedly exists. As a possible solution to this conflict, the term 'ecotourism' was born. Its main purpose is to create a special kind of 'visit' which does not destroy cultural and natural values, and respects the character or spirit of the land, opening the visitors' minds to beauties and problems of the visited area.

The Parks

Hungarian national parks are beautiful and special landscapes. Each of them has its own atmosphere. Hortobágy National Park, the oldest among them, was established in 1973 (Figure 1). It preserves internationally

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important ecosystems, as well as the famous *puszta* landscape – a vast trackless wasteland with its unique cultural heritage of cattle herding. Innumerable works of poets and artists speak highly of this landscape, but one really has to visit the park to truly experience the spirit of the place. But this is sometimes impossible if the visitor is a member of a large, loud tourist group.

Kiskunság National Park is the younger sister of Hortobágy. It preserves the finest remains of those wetlands and sandy dunes which once covered extensive areas between the two great rivers, the Danube and the Tisza. The park has seven separate zones of protected land, each of them is a treasure-box of natural and cultural values. Swamps, soda lakes, interesting sand formations and other habitats offer fine opportunities for the rich and special animal communities. They also offer exciting moments for nature lovers to observe, for example, an impressive number of waterfowl species. Visitors also can see old farm houses, pastoral buildings and rare breeds of Hungarian domestic animals.

The landscape of Bükk and Aggtelek National Parks are completely different. The forested mountains, the chaos of rock shapes, exciting karstic formations and deep caves, the diverse types of mountain meadow. The variety of treasures from rare

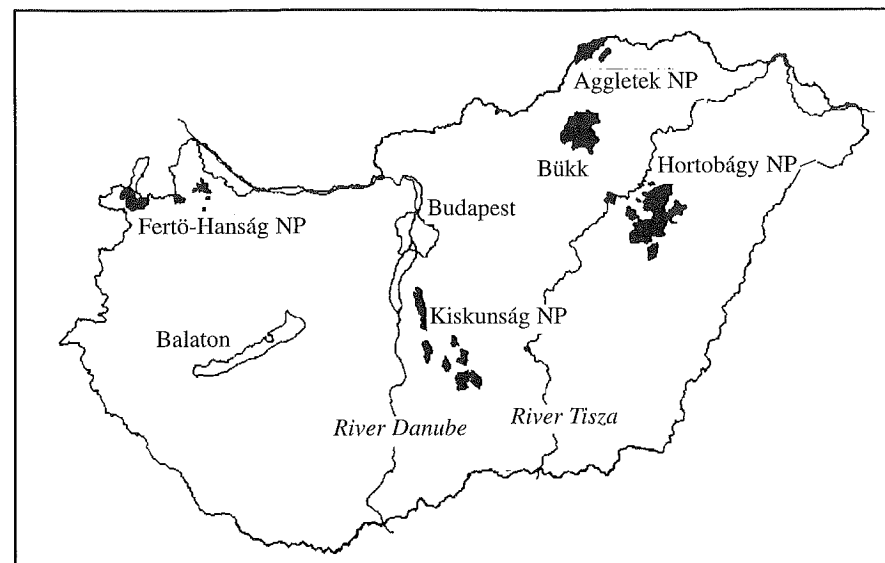


Figure 1 The location of National Parks in Hungary

plant and animal species through to famous archaeological sites can be found here.

The youngest of the Hungarian parks is Fertő-Hanság National Park in the north-western corner of the country. Its landscape is determined by the Fertő steppe and the Hanság wetlands, a landscape of salty lakes surrounded by reedbeds which extend over the border into Austria.

Present Tourism in the Parks

There are both traditions as well as many new tendencies for tourist experiences in the Hungarian national parks. Hiking in the forests in the Bükk mountains, taking part in famous horse shows in Hortobágy and Kinsunság and hunting in Fertő-Hanság are examples of old traditions. New forms came with the increasing presence of cars, bikes, and motorbikes, and include naturalist pursuits like bird-watching and special archaeological interpretation trails.

Having the dual mission of preserving the values and promoting opportunities for recreation and education for visitors, national park authorities have always tried to create harmony between conservation and tourism. They have developed nature trails and visitor centres. They organise special tours and 'nature' camps, mainly for children. They also try to prevent and/or reduce harmful impacts of tourism. Working on such harmonisation, the directorates are faced with two main problems.

One takes its roots in the staff profile. Parks do not have enough employees for planning and management of tourism, for operating tours and giving special education services for a great number of visitors. Nor do they have a volunteer system. The maintenance of trails, centres and other visitor facilities is expensive. The other main problem is the lack of money that can be used for these purposes. The problems can be better understood if we realise that tourism is only

one of the land-use forms in the parks. Forestry, agriculture, fishing, settlement development and others often cause greater conflicts than tourism, and managing these problems requires more energy and attention from the staff.

Though tourism usually does not represent the major problem of park management, some further facts must be considered. Even now there are park areas that are heavily used and destroyed by tourists and holiday developments. These problems have to be solved quite soon, however, since they can result in the loss of protected values and damage great tracts of preserved landscapes. Uncontrolled recreational development, soil erosion, air pollution and harmful visual impacts caused by tourists should be better managed. No tourism is desirable in national parks which endangers or destroys nationally and internationally important ecosystems and cultural heritage.

The other issue that must be considered is that of interpretation. The effective education work in protected areas is now more important than ever before. The clear and constructive presentation of natural and cultural treasures, and the review of endangering processes make visitors responsive to local and global problems of the natural world and their own environment. In Hungary, where unfortunately the awareness by society of the problems of nature conservation and environmental protection is not that significant, and more opportunities have to be developed in national parks, visited by thousands of people annually, to make the public more sensitive.

Furthermore, interpretation can be a wonderful tool of public relations, which again needs to be actively developed in the national parks: a few visitors, residents and other landusers receive detailed information about the work and purposes of national

park authorities. This lack of dialogue cannot help solve conflicts in the parks; indeed, it even creates more. There is a celebrated educational centre in Kinkunság National Park, a new and attractive visitor centre in Fertő-Hanság National Park, but despite this, visitors quite often do not get comprehensive, constructive information about natural and man-made processes in and around the protected areas. They usually do not take part effectively in the preservation of the parks and many visitors leave them without understanding the real spirit of the landscapes they have visited.

The Idea of Ecotourism

Back in the 1960s, in some regions of the world, there were signs that showed that uncontrolled, unlimited tourist development can be extremely dangerous as it can completely kill the physical and spiritual values of tourist sites. From this, the concept of so-called ecological tourism grew and today goes by many names: soft, eco-, sustainable, alternative and green tourism, for example. There are several definitions, too, from the simple 'value-preserving tourism' to complex, and detailed strategies. Undoubtedly the main point of alternative tourism is that it seeks to reduce harmful visitor impacts on natural and cultural values and on local communities (Figure 2).

The word ecotourism itself is usually used in terms of specialised tourism focused on and taking place in natural and semi-natural, mainly protected, areas. Here ecotourism must promote both protection and low-key development and provide income for the area management and local communities. It also has to organise special programmes for environmental education or interpretation among residents and for all tourists. Many experts see ecotourism offering a unique opportunity to inform people how they can live harmoniously with our planet.

REDUCING HARMFUL IMPACTS ON NATURAL AND CULTURAL VALUES AND ON COMMUNITIES

- limited use of resources
- reducing waste and other pollution
- reducing harmful visual impacts
- conservation and rehabilitation
- developing visitor education and public relations

INVOLVING LOCAL RESIDENTS AND LAND USERS IN TOURISM

- supporting local economies
- employing local residents
- developing mutual public relations

CONSTRUCTIVE INTEGRATION OF TOURISM AND PRESERVATION INTO PLANNING

CONTINUOUS RESEARCH AND MONITORING OF TOURISM AND OTHER RELATED PROCESSES

TRAINING AND EMPLOYING SPECIALISED STAFF AND VOLUNTEERS

GIVING FULL AND RESPONSIBLE INFORMATION IN TOURISM MARKETING

[partially adapted from WWF, 1992]

Figure 2 Sustainable tourism strategy

I would like to add an important rider to these images. Though ecotourism was born as an alternative to mass tourism, it is not an alternative just because only a few people take part in it. Ecotourism can be organised with either small or large groups of visitors, because the main point is the form and the impact. (A lonely 'nature lover' can cause

as much if not more trouble trying to take a picture of a endangered bird species as a guided group on a watchtower or following a trail.) Despite all its perceived advantages, ecotourism today is rather an experiment in a few areas, treated more as a dream than reality.

Ideas and Possibilities

Theoretically it is obvious that all kinds of tourist activities, either longer holidays or shorter trips, have to be realised in the spirit of ecotourism in national parks. Their values are fragile and visitor numbers will certainly not decrease in the future. In terms of the ecotourism ideals, there is a gap between theory and practice in many tourist activities within Hungarian national parks. Of course they are not a Hungarian speciality, and some basic universal principles need to be considered.

First of all, all types of tourism activities must be controlled, selected and continuously observed in the parks. Some forms clearly do not have place in the parks, some others have to be minimised and some others have to be encouraged. Harmful impacts can be reduced by physical, administrative, interpretive and complex techniques, and each park has to select the most effective ways (Figure 3).

Second, each controlled type of tourism activity must, somehow, protect the landscape, the wildlife and other treasures. Again, several techniques can be selected from entrance fees through volunteer work to marketing local products. Third, each visitor of the national park has to get to know that she or he is visiting a national park, has to know why it is a national park and has to be informed of the rules of tourism there. He or she also has to be informed of the possibilities of helping to protect the park. Each visitor has to enter

PHYSICAL

- marked routes
- raised paths and ramps
- fences
- watchtowers
- rehabilitation of sites

ADMINISTRATIVE

- spatial restriction
- temporal restriction
- numerical restriction
- speed limits
- guiding
- rearranging
- special regulations of activities
- concession
- permission

INTERPRETIVE

- demonstration/show room
- exhibition
- system of signs – guided tours
- lectures
- offering alternatives
- documentation

COMPLEX

- zoning
- nature – history trail
- using green/alternative techniques
- visitor centre
- show – habitat

Figure 3 Tools for reducing harmful visitor impacts (ideas)

relations with the spirit of the landscape at different levels and has to get to know something about the values and problems of the park. This is a major idea of responsible tourism. Fourth, all kinds of visitor facilities and their environment have to be designed,

built, used or reconstructed in an environmentally and landscape friendly way.

Beyond the fact that applied green or alternative techniques reduce harmful impacts, like pollution, wasting energy, destroying the *genius loci*, etc., they could play a very effective role in environmental education of the park visitors. Visitor facilities "have to be a window to the natural world", and they have to be "a vehicle for learning and understanding" (Andersen, 1993). All construction should reflect environmental concerns and help to create a strong connection between the landscape and the visitor. A lot has to be done in this field of management in Hungarian parks. Finally, through tourism Hungarian parks have to develop their public relations very vigorously. This connection starts at the very beginning – planning – and it opens wide horizons not only on the local level but on national and even international level.

I started this article with a statement that Hungarian national parks are beautiful landscapes. They are also interesting, because they preserve both natural ecosystems – diverse flora and fauna and sites of special geological formations – as well as evidence of human land-use over hundreds of years. Different types of agricultural uses, water regulations, small size industries, farms and villages have left their marks on the face of the landscape. Altogether this dual structure offers a surprisingly large opportunity for tourism in the parks. Visitors can become acquainted with the treasures of the natural world and landscape history of the place. Together with these, they can get to know a lot about land-use technologies of ancient and modern times, and their impacts on natural systems.

Hungarian national parks are ideal for short and long distance walking, especially in the mountains, and for biking, especially on the

plains. The system of routeways should be surveyed and sometimes reorganised, since some of the present ones pass through strictly protected parts. The routes would need detailed maps and different kinds of interpretation strategies. More varied nature-historic trails could be developed in each park. Managers have to choose from different types according to the character of the area and the cost of maintenance. (For example, in open landscapes like Kiskunság and Hortobágy, simple numbered signs are suitable instead of large information boards, with complementary information sheets describing the waymarked routes.) In wetland and mountain regions, boards can be erected in simple, modest styles.

It might be useful for each park to rethink the present practice of information giving, which usually describes only specialities not characteristics. Most Hungarians, for example, do not know the typical, native trees or flowers, even of their home region. It would also be very important, besides describing natural processes, to interpret the man-made changes in the landscape and to speak not only about the natural wealth, but the problems, too. Guided tours are not common or effective in the parks among adult visitors. According to my recent research on demands and images of people about tourism in national parks, it can be ascertained that most adult tourists would like to learn more about the areas they are visiting, and possibly through participating in guided walks. The fact that interpretation and public relations management needs special trained skills should be realised in Hungarian national parks. More staff should be trained for these very important tasks.

Possibly dangerous or conflicting activities, like mountain biking, skiing, caving or horse-riding have to be vigorously controlled. Some activities having really harmful impacts should be banned in the parks,

such as motor-cycling, off-road biking, motor-cross racing. In theory, hunting for pleasure is not considered by experts to be compatible with nature conservation philosophy applied within national parks. The artificially high number of hunted species causes serious damage mainly in our mountain national parks. In my opinion ecotourism excludes hunting for pleasure, but the problem like many others should be discussed openly at regional level.

The problem of lack of staff can be relieved by organising different volunteer programmes in the parks. Somehow this is also a special type of tourism, and could be a form of successful interpretation. Help in habitat restoration, fighting against invading exotic plant species, maintaining trails and other facilities, monitoring and many other management tasks are essential in this work. Volunteering should be promoted, to young and old alike.

The rich, diverse landscapes of the Hungarian national parks also offer great possibilities to apply environmentally-friendly design techniques. The natural ambience and value of the places need to be preserved, and the polluting effect of many inappropriate built elements needs to be minimised. Visitor facilities in or around settlements should be harmonised with the valuable historical atmosphere. In more natural sites, they should be very modest, and show humility and harmony with the surrounding landforms and native plant communities. Their environment should be reconstructed using native plants and natural landscaping. Applying 'alternative' techniques at some visitor facilities like solar heating, selected waste management, recycling products or composting toilet waste, would help. Giving honest information to the visitors about problems and opportunities in the park landscapes would serve both to educate and canvas support. This may

also influence how additional funding could be sought.

Finally I would like to mention the extraordinary opportunities for improving cultural heritage networks in and around Hungarian national parks. For example routes of traditional products could be followed on special interpretation trails. The great number of archaeological and other historical sites and buildings both within and in the vicinity of the parks are available for such treatment. In addition, the park authorities should collaborate with other organisations such as local governments, NGOs, independent sponsors and funding bodies etc. The learning of traditional skills, like basket weaving, pottery, old style farming, could both support local communities and create a varied and interesting image for the parks.

The ideas I have indicated above are only examples, picked at random, but hopefully giving a feeling for the kind of strategic and tactical planning advocated. Ultimately the aim is to preserve our national treasures and to offer innovative ways of interpreting and experiencing the spirit of our varied landscapes. Agreeing with Olmsted, who was cited at the beginning of this article, I do believe that well-preserved, well-managed and well-developed national parks are truly a national asset which can help educate all strata of society. They can have simple yet fundamental effects on people. I believe that locally and even globally they can improve the quality of our life and our sensitivity towards nature. The opportunity exists and we must not let it slip away.

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NATURE-ORIENTED TOURISM IN SAUDI ARABIA

John Ady

This paper deals with three closely related issues vital to the integrity of rural Saudi Arabia: conservation, internal tourism and education about the environment.

Introduction

In any country conservation will only succeed if it is supported by the inhabitants of the conserved area or enforced by authority. Popular support is based on its benefit and use to local people who will conserve resources they see as valuable to themselves. Government protection (as in the Harrat al Harrah or traditional royal hunting preserves in other countries) tends to divide the interested population into gamekeepers or poachers, even where the aim is to demonstrate or restore ecologically sound management for the ultimate good of all.

Perhaps tourism can help here as it has done in the safari parks of East Africa. But where this becomes popular it may do so at the expense of the environment selected, or of established conflicting uses. The effects of overhunting on native animals, and of intensive recreation on beauty spots like Jabal Soudah show that popular resources often attract more pressure than they can survive without becoming degraded.

Then in Saudi Arabia there is a lack of interest - in both townsmen and bedu - in preserving the traditional countryside. The

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Arab townsman has tended to see it with its nomads as a rather hostile environment to be improved, if possible, rather than conserved. And because of past government subsidies for headage, fodder and water (and thus of increased population), and the replacement of tribal by national sanctions, herdsmen have been encouraged for decades to overgraze their land. The essential need for education of the young to correct these attitudes in the long term is lagging behind.

This paper presents two approaches which may be of some use. One is a guide to promote internal tourism; the second is a series of six masterplan studies for areas near Riyadh, Madinah and Taif, Ha'il, Tabuk and the Farasan Islands prepared for the National Commission for Wildlife Conservation and Development (NCWCD) by students and staff of the Department of Landscape Architecture at King Abdul Aziz University, Jeddah. These are put in the context of the three main issues, with five suggestions made concerning each.

1: Conservation

How can conservation be made to pay as tourism and become locally acceptable?

The first essential is that if the government subsidises development this should be sustainable. The increase of flocks fed on

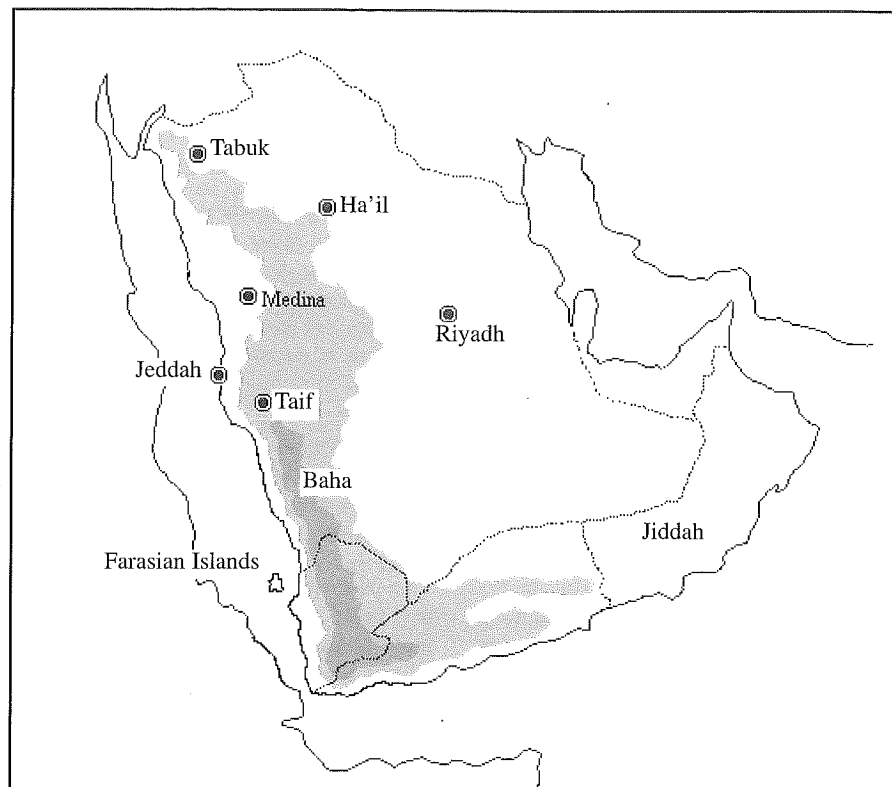


Figure 1 Saudi Arabia: outline relief and principal locations mentioned in the text

imported barley and the bulldozed enlargement of terraces which remain unused because they are still uneconomic are not ecologically defensible. To take an example from west of Taif: subsidies paid to reafforest woodland terraces or to encourage the traditional local skills of making honey and attar of roses would repay investment generations longer than subsidies, which result in the impoverishment of rangeland.

Secondly, profits from conservation-related tourist enterprises should go to the local people not to commercial outsiders, to ensure their support. This point is emphasised in the study *A System of Protected Areas for Saudi Arabia* by Drs Graham

Child and John Grainger of the NCWCD. Local majority ownership of businesses is mandatory on a national scale. Could it not be made so on a regional scale as well?

Thirdly, the government, in granting infrastructural improvements and tourist concessions to local people, should bargain with tribal sheikhs to do so in return for their people's commitment to conservation. But this should be done to ensure the support of the people rather than to buy off their leaders.

Fourthly, if it is possible, conservation should be associated with the local heritage and traditional rights, as was achieved in the

case of the re-introduced oryx in the Jiddat al Harasis in Oman. It may then become a matter of local pride as well as profit. In the long run this should be cheaper and more beneficial both to the local society and to the government. If land is requisitioned without compensation of some sort, investment in it may be wasted, and conservation made locally unpopular and politically impracticable.

Fifthly, fees as for hunting and fishing should be charged for the private use of public resources, and rural customary development controls supported in order to make it difficult for the public to abuse vulnerable environments, such as woodlands and other sites of ecological diversity. The best protection is inaccessibility, as military reserves demonstrate. But access for scientific and educational reasons should be acceptable on a small scale if herdsman and the picnicking public were also provided for. This conflict, which is a world-wide one, is summarized in differing definitions of national parks. The International Union for the Conservation of Nature has defined them as ecologically special areas where visitors are "allowed to enter under special conditions". The Saudi Arabian National Parks Department has defined them as areas of "resources...to be protected...for the enjoyment" of people. But to encourage, even with the best intentions, activities which degrade the valued resources is only another form of unsustainable development.

2: Internal Tourism

How can internal tourism be made popular but prevented from degrading the environment?

It must first be accepted that successful tourism is a complex of industries requiring large investment and extensive organisation of transport, lodging, food and activities, as

the Hajj pilgrimage shows. If the government were to sponsor improvements to the infrastructure, then the already excellent network of roads, air services and luxury hotels could be supplemented with other levels of family accommodation, facilities and entertainments, plus appropriate publicity, which some would say are currently lacking.

Secondly, this high level of investment in infrastructure also requires high levels of use which may well conflict with the conservation of natural resources except in the most robust locations such as intertidal sand beaches. Therefore, there is a case for government sponsored recreation centres like the existing sports centres, which are near large cities, in places tolerant of heavy use, and of professionally-organised family-oriented entertainments (similar to Disney theme parks). These could divert mass recreation and day-picnicking away from more vulnerable environments.

Thirdly, concessions to develop these centres could be granted provisional on a percentage of the profits going to support local heritage sites, natural and man-made, especially towards the costs of the disposal of litter and sewage, and on the employment of local people. Even the skills of the ancient profession of *mutawif* (pilgrimage guide/interpreter) might be brought to contribute.

Fourthly, on a smaller scale, a form of ecotourism could build on existing experience, such as that of divers on the coral reef, cameldrivers between the Tihama and the Sarawat who could lead groups through the countryside, or archaeologically trained guides who could explain sites like Madain Salih, Diriyyah or Wadi Najran. The much lower numbers here might be balanced by the much lower infrastructural costs and the much higher charges such tourists could be expected to pay.

Fifthly, at present there is a wide variety of tourism-related bodies: the Ministry of Agriculture with the National Parks Department, the Ministry of Defence with the Meteorology and Environmental Protection Administration, the NCWCD, the Ministry of Education's Department of Antiquities, the Ministry of Municipal and Rural Affairs which regulates rural developments, municipalities and private companies. To coordinate an agreed national policy on tourism perhaps a Deputy Ministry of Tourism should be established. Even if tourism were not government sponsored, this could set standards and assist and regulate private enterprise.

3: Education

How can Arabians be educated to know and respect their environment as part of their heritage?

The government's philosophy for planning and managing the countryside must be based on the injunctions of the Koran and of Sharia law, which enjoin making the best use of land and other sources without waste, damage, pollution or harm to man or beast. If the policy of government five-year plans is coordinated to support conservation and sustainable development then education towards these aims will be realistic. Without such a basis environmental exploitation will go almost unchecked.

A second immediate aim is education through entertainment. Television has a wide voluntary audience and can inform about environmental issues worldwide, as well as in Arabia, where the Gulf War pollution is still evident. There is a large range of excellent films about animals, for instance, which are always popular and not too controversial. Mobile units as used at Mahazat as Sayd could bring these to the countryside. There are also a few good peri-

odicals (such as *Ahlan wa Sahlan*) which sometimes cover these issues. A regular, well illustrated, popular journal in Arabic would be useful; the existing English language *Arabian Wildlife* preaches mainly to the converted.

A third direction is in the design of the school curriculum. It is too late now to change the attitude of most adults. However, charts, readers, films, school gardens, field trips, nature and wildlife clubs could all help young Saudis – as do the existing tree planting weeks already – to become more aware of their natural setting and their responsibility for it. The national parks of the Western tradition are based on a reverence for wilderness not exactly paralleled in the muslim tradition which has evolved in desert lands. However, our university courses at the School of Environmental Design in Jeddah are training young potential managers of the environment through the pilot plans drawn up for the NCWCD.

Fourthly, green tourism could educate children as well as the better off. One aim should be the creation of visitor centres and wildlife displays, connected with reserves, near the larger cities as local centres of information, outreach programmes and outings. Glass-bottomed boat trips over the coral reef could be both attractive and instructive. Another example is voluntary work camps or vacation camps teaching bushcraft and observation at the same time as doing useful work. These could target especially old villages such as Dze Ayn in Baha province, woodlands, wetlands, beaches and the reef.

Fifth, there is the idea of a guide for internal tourism as put forward in the publication *A Contribution to the Debate on Internal Tourism in Saudi Arabia* (Al-Ankary and El-Bushra, 1989).

A Guide for Internal Tourism

In practical terms, the main use of internal tourism, enjoyment apart, should be to keep wealth in and to spread it around the country. The main use of a written guide would be to make the people more aware of their heritage both natural and man-made. In defining this heritage, it is essential to divide the vulnerable sites and areas of limited access to be protected, from visitor-tolerant areas which could be developed for use. Vulnerable natural areas include those which are unique, fragile, of ecological value, or intact but threatened ecosystems. Vulnerable man-made sites include archaeological or threatened monuments. Tolerant areas of great beauty or interest which are not rare or fragile, and monuments of religious, historic and architectural value could be made accessible and presentable.

The guide would promote environmental awareness on two levels. For the public it would publish a clear pictorial map with brief descriptions of sites and directions for teaching them. A restricted version for government ministries, planning officials, and scientists would map areas and sites with outline masterplans for each, giving development policies, management guidelines, suggestions for legal enforcement, and prioritisation of areas and potential areas for treatment. This could illustrate and form the basis for a comprehensive plan for internal tourism. In the absence of descriptive writing in Arabia, apart from specialist reports or popular picture books, it might also help develop a tradition of topographic writing.

However, since land use is a central political and social issue, the criteria used to define and plan especially for protected areas – those to be withdrawn from undirected use – must first be agreed between ministries, local governments, and professional organisations, and then be publicly

accepted, especially by the local people most affected. Our paper suggested the composition of a study team and a methodology for it to use in the field, the factors to inventory and assess, and the criteria to apply, among which the degree of local benefit and support for the designation were considered important.

Pilot Planning Studies.

Finally, there are the six pilot studies and masterplans made by our Department of Landscape Architecture for the NCWCD. These are the Riyadh River in 1988, Jibal Fiqrah in 1989, the Taif Escarpment in 1991, Wadi Mashar near Ha'il in 1993, Jabal Qaraqir and Jabal ad-Dubbah in 1994 and the Farasan Islands in 1995.

The first, 55 kilometres of Riyadh's waste water flowing in the Wadi Hanifah is now the longest permanent river in Saudi Arabia. It has created a wetland of at least seven different contiguous habitats in the middle of the eastern desert, which have become a magnet for increasing numbers of birds. Jibal Fiqrah is an isolated, terraced, rolling plateau west of Medina where an extensive flora has been preserved, and adjoining it is a mountain which still supports wild ibex. Some road building and general construction has begun to badly degrade this unique ecological island.

The escarpment west of Taif is wooded with junipers where a different species from the Mediterranean and Africa share a common 30 kilometre tract, each harbouring its own associated flora and fauna. The escarpment also provides the catchment for about a third of Taif's water. Here also, protection has recently been replaced by a plan for its development. Wadi Mashar, just outside Ha'il on the edge of a proposed Jabal 'Aja protected area, is already well used for local recreation. A regulated recreational zone

including a living museum of local habitats and animals was proposed. Jabal ad-Dubbagh and Jibal Qaraqir southwest of Tabuk are scenically remarkable and shelter the largest wild population of ibex in the country. They, along with Medain Salih, are excellent sites for pilot eco-tourism by foreigners based in Petra, if ever this were to develop. The Farasan Islands off Jizan, although semi-desert, support the largest wild population of gazelle in the country, huge numbers of birds and a great variety of marine habitats, from coral reefs to mangroves, with a rich marine life including dolphins, turtles, dugongs and whales. World Heritage status has already been suggested for the islands.

In each case, the student-staff team surveyed and analysed the resources and produced a pilot masterplan with recommenda-

tions for protection, conservation (for education and agriculture) and for recreational development. They have proved a useful introduction for potential Saudi landscape planners and designers to the ecological riches of their country and a convenient basis for discussion between the NCWCD and the authorities and people of the areas studied. It will be some time before habits of conservation, internal tourism and environmental education are accepted by any large number of people here, but a start has been made.

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THE MOON: THE DARK SIDE OF THE LANDSCAPE

Aydin Zorlutuna

Up to 30% of street light source goes directly up into the sky...we are in danger of eliminating one of our finer natural and emotional experiences – the view of a dark, star-filled sky
(Fieldhouse, 1990)

In our persistence to effectively 'extend' the daytime, we have become conditioned to accept that our predominant experience of the night-time should consist of artificial illumination. As such, many of us have lost the ability to perceive the night-time for what it truly is – one half of the circadian cycle, the twenty four hour alternation of light and darkness. In this cycle we understand that the day and night are opposites, as we commonly experience their recurrence in everyday life. Consequently, the potency of the night-time is best felt in its 'natural' and unpolluted state, when its existence as an extreme opposite to daytime is most pronounced.

The moon is an integral part of the night-time and serves as a natural nocturnal light source, in the same way that the sun does of the daytime. Because moonlight is much less intense than sunlight, its effect on the landscape is much more subtle. Contrary to this is the power of its related symbology, and the consequential effects that this has on our psychological perception of night-time. Furthermore, there is increasing evidence that the moon's gravity has an effect not only on the ocean tides, but also in the growth of plants, the control of biorhythms

in humans, the control of atmospheric conditions and the movement of the earth's crust itself.

All of these aspects are as important to the consideration of designing the nocturnal landscape as the sun and its effects are to the design of the daytime landscape. We should, therefore, begin to realise that our experience of 'landscape' should not be confined to the daytime, or to the 'artificial' night-time. Instead, we should make a conscious effort to experience the landscape in the context of both the daytime and the true nature of night-time.

There is, however, the problem of security. Our primal need for security in the landscape is the most fundamental reason for our common reluctance to immerse ourselves in the night-time. In the darkness of the night we feel vulnerable and insecure, largely because of a reduction in visual sensation. However our other senses could, and should, play an integral part in our experience of the night-time landscape in order to reduce that sense of insecurity.

Sensation

It is a fact that we commonly 'ignore' much of our incoming sensory information, either because it does not seem relevant or it is not threatening. To this end, we do not fully perceive a high proportion of our diverse environment, to the detriment of our potential experience. We become locked in a

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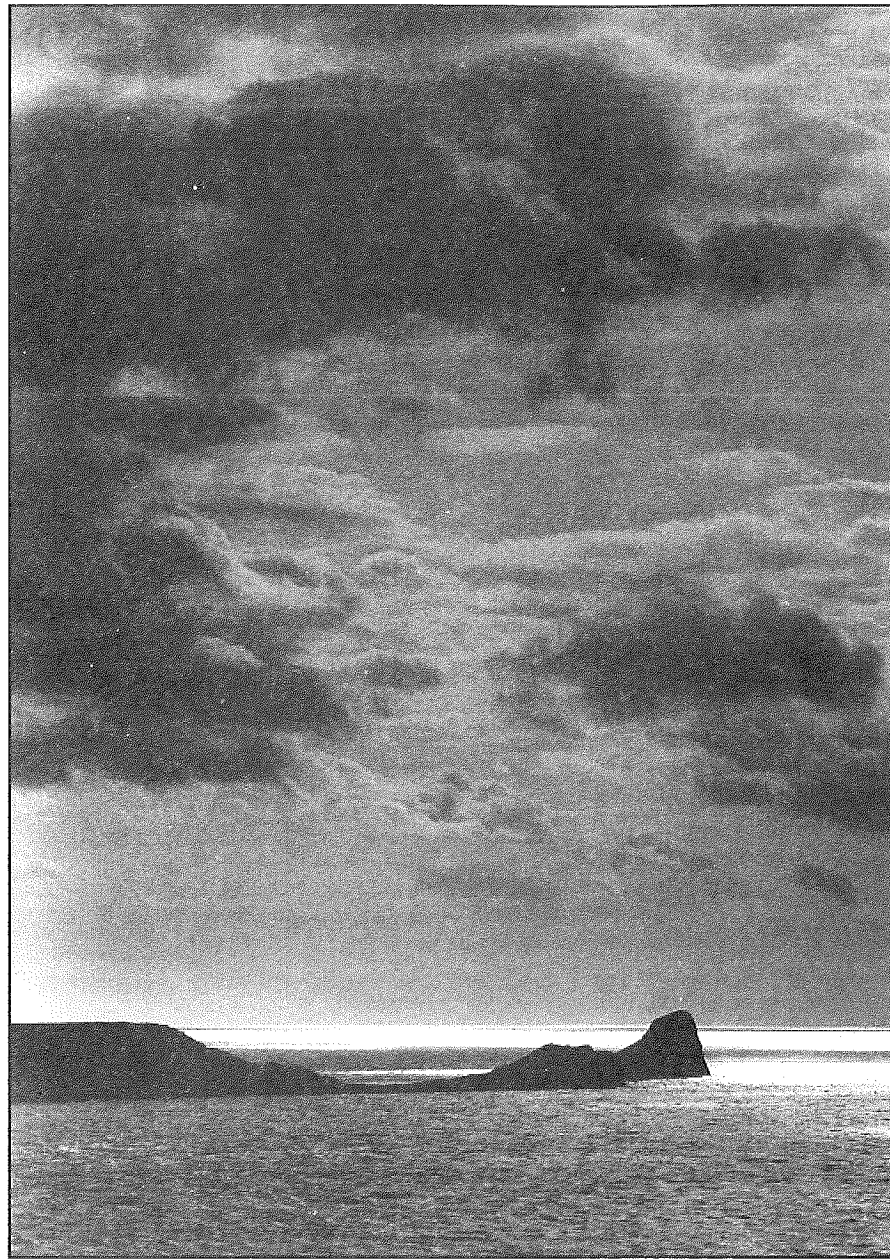


Figure 1 Moonlight over the Worm's Head, The Gower, South Wales

body of ambient sensitivity and do not fully exploit the potential of our sensory organs. To recognise this is to take the first step towards an increased awareness and perception of the environment. We become aware that we are not aware. To utilize and, as such, re-sensitize the senses in a conscious way, we inevitably raise our perception of the world. For example, by becoming fully aware of the sense of smell, we may broaden and, indeed, 'change' our perception of an object by adding a new dimension to the way we perceive it. As such we should strive for the conscious use and harmonious interaction of all our senses, within the diverse and stimulatingly rich environment, in that we may positively and fully perceive a higher, holistic reality of the world.

Perception

We cannot safely say that we perceive the world solely by means of the senses, because inevitably the aspects of memory, emotion, fantasy and imagination all crystallize and enrich any perception that we have of the environment. Our perception of the sensual world is therefore partly independent of the sensory information we receive. We naturally perceive objects and shapes in the formation of clouds, in rocks, in the crooked oak tree, and in the silhouette of hills and mountains. At night, we perceive silhouetted forms as lacking depth of field and, thus, they are product of the illusive distortion of physical reality.

Silhouetted form is a predominant constituent of the night-time landscape (Figure 1). In this way, the night-time landscape is an illusive landscape, but only as the result of our overdependence upon our visual sense. To the other senses, our perception of the nightscape is as true to reality as the dayscape. This does not imply that the visual sense is consequently rendered useless at night-time, but is merely subject to a change

in sensitivity through the increased activity of rod neurones in the retina of the eye.

Cycles

We cannot escape the image of life in our perception of the landscape. All around us, in the hierarchical functioning of an ecosystem, is the perpetual cycle of life and death. To this end, the landscape is a dynamic system, subject to metamorphosis as a direct result of that cycle. There is also the occurrence of the yearly cycle through which we observe the passage of the seasons, where the two extremes of summer and winter are metaphors to life and death.

The same can be said of the cycle of day and night. On the basis that daytime and night-time are two extremes, their opposing effects on the characteristics of the landscape are equally extreme. In dawn and dusk these extremities meet, respectively reflected in spring at the birth of life and the lengthening of sunlight hours, and in autumn, as leaf colour mirrors the sunset and the hours shorten. In the understanding and experience of this cyclical process through our experience of the landscape, we redress any imbalance in our perception of the environment. To this end, we must understand that our experience of the night-time is as important as the daytime.

The Night

In many ways, night-time symbolizes and induces passivity. Many lifeforms become passive at night, either because they inherently need a period of rest from activity, or because the absence of sunlight is an arresting factor to their biological metabolism. Plants, for example, release oxygen as a by-product of photo-synthesis during the day and release carbon dioxide during the night as they 'passively' respire. We too become passive in a radical way. In the extensive

utility of our visual sense during the day-time, the drastic reduction of light intensity at night renders our vision 'passive' – secondary to other senses. It is important, therefore, in our efforts to experience the landscape at night, to perceive the nightscape as a dynamic collection of secondary 'markers' as represented by the textures of bark, the taste of fruits, the distinction of scents.

Visual perception is diversified under the sensual experience of moonlight. With the Moon providing illumination, a proportion of nocturnal vision is redressed. Because moonlight is reflected sunlight, it imbues the cooler passive colours of blue, silver and white upon the landscape. Obviously as it waxes and wanes, the moon's light varies in intensity, but on a cloudless night the light of the full moon produces a level of visibility similar to that of an overcast evening. This seems to indicate that the

night is not as alien to the day as we like to think. What is more, the moon, like the sun, imposes a physical influence upon the earth, and much of life present there.

The Moon

Our perception of the daily circadian cycle is geared primarily to the rising and setting of the sun. This solar principle is accepted as common knowledge, but how many of us are acquainted with the lunar principle? The study of lunar astronomy is called selenology, fundamental to which is the lunar cycle, the time taken between two full moons, on average 29 days, 12 hours and 44 minutes. That period we call the lunar (or synodic) month.

During the lunar month, the moon passes through a number of 'phases', or apparent changes of shape (Figure 2). At 'new' moon, the dark side of the moon is turned

towards us and normally cannot be seen from earth. At 'full', the whole of the sunlit side is presented, while at intermediate times, during waxing or waning phases, the moon may be half, gibbous or crescent.

Physical Influences

The tidal pull of the moon's gravitation on the seas is possibly, to the average individual, the most commonly known effect of the moon on the earth. What is less known is that the moon dictates certain rhythms and biological activities of plants and animals. The most prominent evidence of the moon's influence on plants is in their germination. It has been found, in many controlled experiments, that the waxing moon is a vital factor to successful germination. The moon also regulates and controls the activities and reproductive cycles of many birds and animals. Sexual activity, emotional fluctuation, and other biological rhythms are held largely as a result of the moon. The most disturbing influence, however, is the causation of lunacy in man. It is generally accepted that lunatic (from Latin, *luna* = moon) patients often suffer particularly violent bursts of activity during the new and full moon phases.

The Landscape

Moonlight offers to our perception a unique quality of landscape character and consequent experience. Sensually, it is the visual contrast between the white, silvery moonlight and the black, foreboding shadows that is paramount in our sensory perception. Moonlight shadows are markedly different to sunlight shadows. They appear as ominous black patches upon the landscape, hugely exaggerated by even the slightest of hollows or smallest of trees. The powerful silhouette of trees, and other landscape features, against the moonlit sky can be strangely intimidating. The silhouettes of

deciduous trees are most potent when perceived in the winter season, when the leafless and specific forms of different species are most prominent. Backed by a clear moon, the accentuation of the silhouette often gives the tree a vaguely humanoid form, particularly a crooked oak, with its finger-like branches poised in anticipation toward the unwary observer. The image in reality is actually quite terrifying!

The image of moonlit water, on the other hand, is evocatively tranquil. The passive reflectivity of moonlight upon the water's surface is a revelation. Moon and water share a 'common ground', both being reflective of light. And yet, somehow, the visual connection seems to be only part of the picture. The rest is deeper: the sound of running water at night-time has a therapeutic quality, breaking the tension of the predominant silence and providing an ambient noise on which to focus attention, both physically and psychologically. The connections go even deeper: they share the same symbols.

Moon Symbolology

Many aspects of moon symbolology are married to those of earth symbolology, to such an extent that they often share the same symbols; these being predominantly representative of one or more aspects of femininity. A major link exists between the roundness of the moon and the curvature of the female body. "A woman with her arms upraised is one of the most basic forms of the moon symbol" (Rush, 1976). The potency of this form lies in the gesture of embracing and receiving the moon with the upraised arms, but more importantly, it reflects the shape of the crescent moon (Figure 3). Likewise, water is emblematic of femininity (and thus the moon) in the notion of passivity, opposed by fire (masculinity, and thus the sun) in the notion of activity.

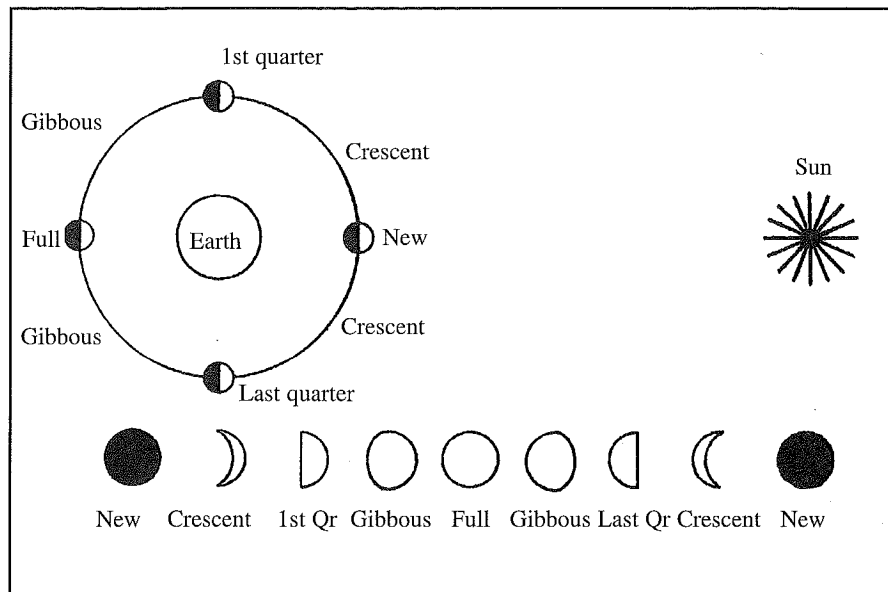


Figure 2 Phases of the moon (diagram not to scale)

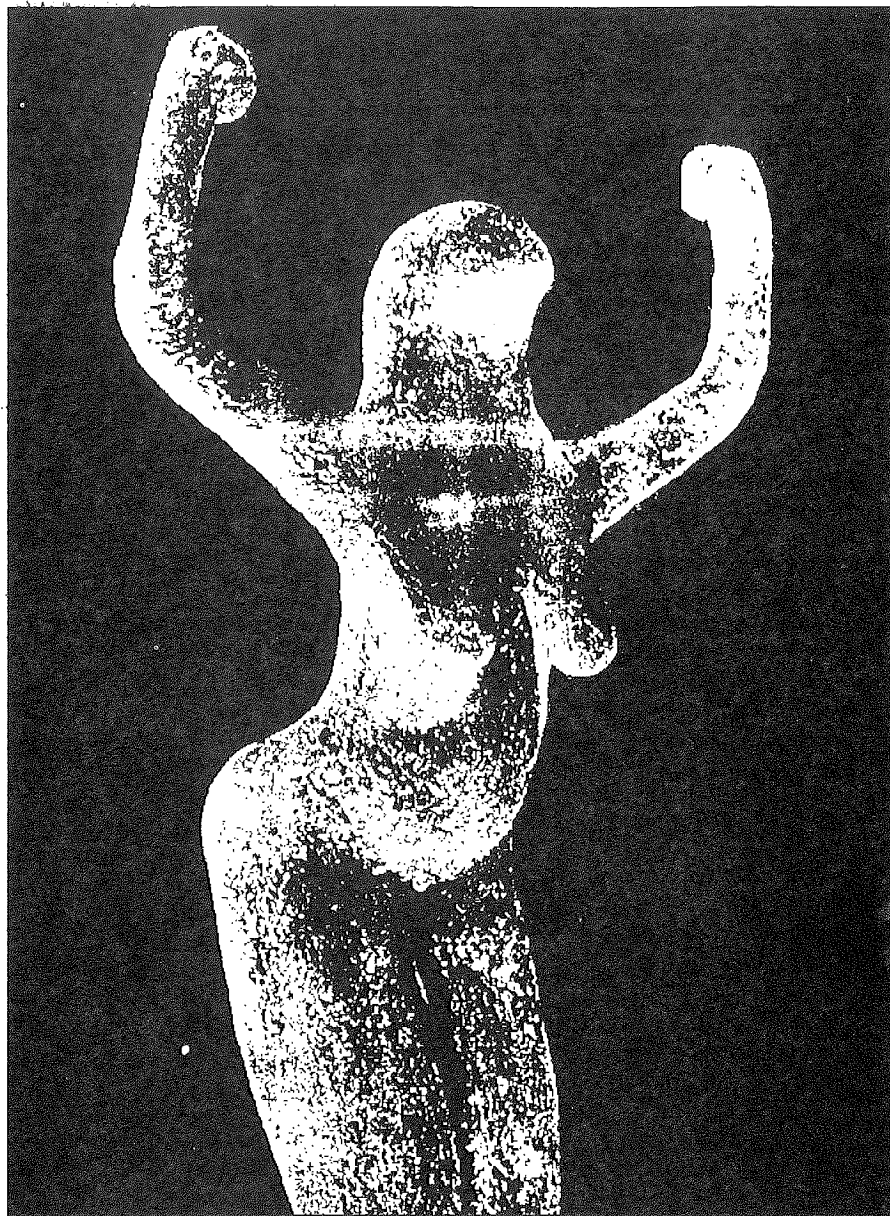


Figure 3 Moon symbol: female form with arms upraised

Another aspect of femininity inherent in the moon (and earth) symbology is the notion of maternity (or procreation). Ultimately the moon could be considered a symbol of life as represented in its cyclic repetition. The silver crescent, as an image of the moon, symbolizes the notion of life and death, representing at once the 'cup of life' and the 'sickle of death'. Moon symbology and related consciousness ultimately provides a hugely important and essential resource required to design landscapes for the moon.

Moonlore and Folklore

It was the agriculturally dominant societies that offered most reverence to the moon, owing to their understanding of moon symbology. Perhaps for this reason, in early traditions, women were the first planters, while men were the hunters. The dictation of lunar phasing upon the agricultural regime meant that these early cultures took very seriously the planting and harvesting of their crops. The marriage of symbolic appreciation and experimental practice of the effects of the moon upon plants led to gardeners' lores concerning planting times:

Every old wife will tell you to sow seed and to transplant only with a waxing, never a waning, moon...
(Boland and Boland, 1976).

There are endless moon-based superstitious beliefs that have survived in folklore. Tales of lycanthropy, werewolves and human transformations under a full moon are stories which are so widespread that they "must represent some important behavioural and cultural truth" (Llewellyn, 1990).

Some pagan societies held the sky as their temple dome and the horizon as its boundary. The idea of enclosure within a roofed building opposed their celestial values, blocking out the stars, the sun and the

moon. For this reason they built constructs such as Woodhenge and Stonehenge – earth temples from which to worship and predict solar and lunar events, solstices, equinoxes, eclipses. These predictions essentially marked calendric, agricultural, medical and religious ceremonies.

To the landscape architect, an overview of the cultural beliefs of moonlore and folklore are required if one is to design competently for the moon, where cultural myth gives depth to the understanding of symbolic use in design. Likewise in poetry and imagination, we can touch the deeper functioning of the landscape. Where the poet speaks in metaphors of the moon, the goddess and the blood of our ancestors, the landscape architect has the ability to sculpt the land into living poetry and to consequently 'trigger' the imagination of individuals within the landscape.

If the landscape architect is to competently design for the moontime (and night-time generally), he or she must be prepared to do so on two levels. Initially the design which accommodates our physical perception of that landscape is paramount in our need for some sense of security, and this is achieved through the sensory experience. It could be argued that this level is dominated by a deeper level of our psychological perception of the landscape that concerns symbology, imagination, poetry.

Nocturnal Design

Although the colours in moonlight are very limited in range (principally the blues), their tonal variation can be accentuated in the conscious design of the landscape. The sensible specification of plant and hard materials, whose reflective qualities are known, can achieve interesting tonal emphasis. Furthermore, consideration of the wider composition, in relation to the play of

blue/white moonlight against the black/blue sky, can present possibilities for distinctive views.

In conjunction with our awareness of moonlight is our perception of form. The bold and powerful use of mass form is the most effective method of 'isolating' our awareness of the visual sense, in that we are 'overwhelmed' by our visual perception of such form. Primarily, this is how we visually perceive vegetation *en masse* at night-time, as it is silhouetted against the landform or the sky. The landscape architect must therefore be conscious of the use of form, in the knowledge that it is the silhouette that will be dominant, not the three-dimensional aspect. As the silhouetted oak portrays a unique character and invokes specific emotions within the viewer, so the same effect may be found in other trees.

Here are some tree species and the 'characteristics' of their leafless forms:

Species	Character
<i>Quercus</i> (oak)	intimidation, steadfastness
<i>Betula</i> (birch)	passivity, tranquility
<i>Malus</i> (apple)	mystery, beauty
<i>Fraxinus</i> (ash)	grace, silence
<i>Fagus</i> (beech)	age, wisdom

Although very subjective, the above list might indicate a broad notion of the potential uses of tree forms in nocturnal design.

Another exaggerated aspect of form can be witnessed in the effect of moonlight on landform. Even the slightest fissures and hollows of a moderately flat landscape are enormously accentuated as a result of moonlight. Consequently, shadows are equally as bold. What is perhaps by day only a small hollow, by night becomes a huge gaping mouth, yawning across the undulating landscape. In full moonlight, shadows effectively exaggerate the tonal

contrasts of the landscape and, in the extreme, we begin to perceive texture. Obviously the visual quality of textured form would be largely dependent upon reflectivity. This is particularly so in the case of water. It is a dynamic, metamorphic texture, which should be seriously considered in the design of the nightscape.

Sensory Markers

The diversity of plants in their scents, textures and visual appearances allows many variations in nocturnal design, in that they can be used primarily as sensory 'markers' in the landscape. When sight is less important, these attributes of plants become more noticeable. For example, distinctly scented plants can serve as olfactory landmarks, and likewise distinctly textured plants can serve as touch 'stations'. Olfactory plant markers need to be night blooming species, in order to enhance the visual diversity. Such flowers commonly bend towards the moon in the hope that moths will see them more easily and pollinate them.

Of those plants which are night-blooming, the following are particularly notable: *Jasminum*, *Primula vulgaris*, *Gladiolus tristis*, *Nymphaea* and *Petunia axillaris*. Then there are those plants whose flowers, bark or other features have reflective qualities, such that they illuminate well at night. These might include *Cerastium tomentosum*, *Betula pendula*, *Cortaderia*, *Senecio* and *Phlox*.

The ambient rustle of leaves can add an auditory aspect to nightscape design. So too can the use of certain path and surface materials, since at night-time we metaphorically 'see with our feet'. Needless to say, the path would have to be of relatively coarse material for us to feel it through footwear.

Despite the importance of sensory markers,

we must be careful not to saturate our perception with a frenzy of sounds, sights, smells... Less is more, because we increase our sensual perception at the discovery of each new marker. We need the experience of absence to fully appreciate presence.

Symbolic Design

In the design of the nocturnal landscape the symbolism of femininity should be to the fore. In landform and vegetation, this is best achieved as it is sculpted, manipulated, and subtly exaggerated to an image and curvaceous form reflecting the feminine symbolism. Ultimately, all symbolic meaning is perceived at a higher level of consciousness to the initial perception of the symbol. Thus symbols provoke a shift in consciousness. It may seem ludicrous to promote the idea that we should meditate on moon and earth symbols as a product of landscape experience, but we already do – as we sit by a lake or enjoy the solitude and peace within a woodland.

Conclusion

The product of our one-sided experience of the landscape has led to the biased misconception that is our *only* side. It is not. The nocturnal landscape offers as much – albeit radically different – sensory stimulation and consequent experience as the daytime landscape. Furthermore, an overview of the circadian cycle, in its perpetual revolution of opposing forces, establishes that the extremities of night and day are inseparable and interdependent. Hence we need to complement our predominant daytime experience with a night-time experience.

The moon is a powerful symbol and its links with poetry and imagination are important design factors. Through the ritual acts of, say, fixing stones in the landscape

as markers, we are grounded by the physical motions and gestures that integrate the metaphors and symbols, and stimulate intuition and the unconscious. Therefore we are immovable in one aspect and volatile in another, matching the phasing of the moon around the constancy of time.

It is my belief that we, as designers of the landscape, should regard our medium as a complete system. We should not restrict our designs to the limitations of the senses. At night, in particular, intuition and imagination are key components to the landscape experience. We should therefore be designing for both the daytime and the night-time, holistically. They are one.

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ACADEMIC ACHIEVEMENTS: LANDSCAPE ARCHITECTURE EDUCATION AT CHELTENHAM, 1986-1995

Colin Young

Background

The first degrees in landscape architecture at Cheltenham were awarded in 1986 under the *aegis* of the Council for National Academic Awards. Since the demise of the CNAA the awards have been made by the College but based on the CNAA approved regulations. Over the nine year period up to 1995 the undergraduate course in landscape architecture was structured around three discrete but related year groups, emphasised design within a theoretical and principled context and was of a non-modular organisation. Progression beyond the First Year was conditional on the successful completion of a comprehensive range of assessments which generally had the effect of ensuring a minimum level of competence and commitment in those students aiming for an honours degree. Beyond these assessments only those contributing towards the award of the degree in the Third Year were set.

The 13 year degree awarding period started in 1983 just three years after the course was moved from Pitville in Cheltenham to Gloucester. The move was occasioned by an institutional reorganisation and was an important landmark in the history of the course insofar as it promised, though subsequently did not wholly deliver, a coherent faculty comprising architecture, planning and landscape in permanent, and largely watertight, accommodation. At the begin-

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ning of the study period there were 11 full time members of staff for the undergraduate and diploma courses, 3 part time staff and up to 8 visiting lecturers for a student intake of 23. When compared with the staffing establishment in 1995 two changes are marked. Firstly, the student intake rose steadily to 36 and secondly, the full time staff numbers fell to 8 with dependence on 3 part-time lecturers and as many visiting lecturers. In 1990, and prompted by another institutional change the courses moved back to Cheltenham, this time to the Francis Close Hall campus. At this point there was an HMI visit upon which the courses were awarded an 'Outstanding Quality' rating.

The Study

The focus of this study is laid upon the academic achievements of students who have been on the course and is based on statistics derived from institutional records. Although that does not provide the complete picture of academic achievement, nor reflect in any way the fulfilment of personal ambitions or more generally the student experience, it nevertheless provides a statistical base that is amenable to analysis and thus, at least potentially, capable of informing future policy in marketing and recruitment. Four key variables are used to profile year-by-year and overall achievement; student age, attrition rates, 'A' level subjects and degree class.

Year	Degree Classification								Totals No.
	First No.	%	2(i) No.	%	2(ii) No.	%	Third No.	%	
1986			2	11	11	58	6	32	19
1987			5	22	15	65	3	13	23
1988			4	19	13	62	4	19	21
1989			5	17	24	83			29
1990	2	8	10	38	13	50	1	4	26
1991			7	30	13	57	3	13	23
1992	2	8	10	40	9	36	4	16	25
1993			8	31	11	42	7	27	26
1994	1	4	9	35	8	31	8	31	26
1995	2	9	4	19	14	67	1	5	21*
Totals	7	3	64	27	131	55	37	16	239

* Two students of the 1992/3 intake actually graduated in 1996

Table 1 Distribution of honours degree awards, 1987 - 1995

Since 1986 a total of 239 honours degrees have been awarded which are subdivided under the usual four part classification of Firsts, upper Second class [2(i)], lower Second class [2(ii)] and Thirds all of which is shown in Table 1.

The table also shows that an average of 24 honours degrees were awarded each year with a peak of 29 reached in 1989 and a low of 19 in 1986 and that more 2(ii) degrees were awarded than all the other classes combined. If the classifications are weighted (4 for a First to 1 for a Third) 1990, 1992 and 1995 can be seen as the three most successful years. Perhaps the most marked feature of the data is that no Firsts were awarded in the first four years of the period which is partly accounted for by a recognition that the original awarding regulations were judged by the CNAA to be a little severe. In 1987 they were relaxed but restraint on the

part of the Examination Board to recommend the award of Firsts before some measure of stability had been achieved in the other classes. Maintenance of this early rigour has meant that overall, First class degrees have retained their high value at 3% of the total honours degrees awarded and showing a maximum fluctuation of 7% points. There appears to be no clear pattern or progression to the figures although the greatest percentage of Firsts was achieved in the last year of this period while the greatest number of Thirds was registered in the first year, suggesting some progression.

This overall picture has some aspects worth highlighting. For a number of years the view that as many female students had been enrolled on the course as male, held sway. This, as can be seen from Table 2, proves not to have been the case; rather, males outnumbered females on a 1:1.5 basis (1).

(1) Interestingly, this ratio mirrors the 1996 composition of Landscape Institute membership (Fellows and Associates).

When honours degree classifications are analysed, it can be seen that, while the year-by-year male/female ratio has fluctuated wildly, females have out-performed males in six out of ten years. On three of these occasions females were in a majority while in seven they were the minority gender within a cohort. As a majority they performed better than as a minority. It may also be seen that the attrition rate (Fail + Withdrawal) was lower among females than males although their rate of withdrawal from the course alone was marginally higher. When degree awards are considered individually females out-performed males in gaining 71% of Firsts and nearly achieved parity with 2(i)s and Thirds, but gained only 34% of 2(ii)s. Apart from the gender issue, it is interesting to see that the drive to increase the student intake in 1990 was attended by a slight increase in the attrition rate and that the marked jump in

the 1992 attrition rate coincided with a period of change involving staff changes, recruiting difficulties occasioned by the creation of the *new* universities and the major building programme at Francis Close Hall (1).

The next analysis concerns age as measured, admittedly rather arbitrarily, by whether a student was 21 years of age or older, and thus deemed 'mature', on enrolment.

The data in Table 3 shows, not unexpectedly, that mature students were always outnumbered on an average of nearly 1:3 and although in 1992 that ratio was as high as 1:1.6 and as low as 1:4.3 in 1989 there was not a great deal of fluctuation over the study period. If a division is made between Firsts and 2(i)s, and 2(ii)s and Thirds with the first division obviously representing higher

Period	Awards												Totals		Intake		
	First		2(i)		2(ii)		Third		Pass		Fail		Withdrn.			m	f
1983-86			1	1	4	7	3	3	2	2					10	13	23
1984-87			3	2	10	5	1	2	3		3	1	1	1	21	11	32
1985-88			1	3	7	6	2	2			2	2	1	2	13	16	29
1986-89			4	1	14	10							1	2	19	13	32
1987-90	2		6	4	12	1		1	1		1		1	19	9	28	
1988-91			5	2	11	2	2	1	1			1	1	2	20	8	28
1989-92	2		3	7	6	3	2	2	1			3	1	1	13	18	31
1990-93			4	4	8	3	2	5			3		2	4	19	16	35
1991-94	1		4	5	6	2	7	1	1		6		3	1	28	9	37
1992-95	1	1	2	2	9	5	1		1		6		6	4	26	12	38
Totals	2	5	33	31	87	44	20	17	10	2	21	7	16	18	188	125	313
% of class	29	71	51	49	66	34	54	46	83	17	75	25	47	53	60	40	
% of total	0.6	2	10	10	28	14	6	5	3	1	7	2	5	6			

Table 2 Degree awards by gender, 1983 - 1995

(1) The last two factors were confirmed in surveys in 1991 and 1992 of CGCHE landscape students taken in the first week of their arrival.

Year	Awards										Attrition				Totals		
	First		2(i)		2(ii)		Third		Pass		Fail		Withdrn.		>21	<21	
	>21	<21	>21	<21	>21	<21	>21	<21	>21	<21	>21	<21	>21	<21	>21	<21	
1986				2	3	8	3	3		4					6	17	
1987			3	2	2	13		3	1	2	1	3	2		7	25	
1988			3	1	1	12	1	3	1			4	2	1	8	21	
1989				5	3	21							3		6	26	
1990	1	1	3	7	2	11		1				1		1	6	22	
1991			1	6	2	11	1	2		1		1	2	1	6	22	
1992	2		5	5	3	6	1	3		2		3	1		12	19	
1993			4	4	4	7		7				3	3	3	11	24	
1994	1		1	8	3	5	3	5	1			6	1	3	10	27	
1995	2		1	3	2	12		1		1		2	5	3	6	10	28
Totals	6	1	21	43	25	106	9	28	3	10	3	26	15	17	82	231	
% of class	86	14	33	67	19	81	24	76	23	77	10	90	48	52			
% overall	2	0.3	7	14	8	34	3	4	1	3	1	8	5	5			

Table 3 Degree awards by age, 1983 - 1995

Period	Subjects						Totals		All A levels
	Geography		Art		Biology		Preferred subjects	Points	
1983-86	*	*	*	*	*	*	*	*	*
1984-87	18	80	14	64	12	42	44	186	71
1985-88	9	44	14	94	14	66	37	204	71
1986-89	17	54	18	94	14	70	48	218	81
1987-90	19	80	15	64	15	58	49	202	84
1988-91	18	80	11	46	5	26	34	152	63
1989-92	13	80	15	78	8	44	36	202	72
1990-93	14	*	13	*	8	*	35	*	74
1991-94	18	75	15	86	7	26	40	187	77
1992-95	22	120	13	68	7	34	42	220	109
TOTALS	148		128		90		365		702

* an incomplete record

Table 4 Students with preferred GCE'A' levels

Period	Awards										Totals		
	First add only	2(i) add only	2(ii) add only	Third add only	Pass add only	Fail add only	Withdrn. add only					add only	only
1983-86										1		1	
1984-87		1	1	1								2	1
1985-88	1	1			1						2	4	1
1986-89	1		3	1							4	4	1
1987-90	2		2								4	4	
1988-91	2		1		1			1	1		4	4	2
1989-92	1	2	1	1		2			1		7	7	1
1990-93		1	1	2	1	1			1	3	7	7	3
1991-94		2				1		1	3		3	3	4
1992-95	2			2	2			1	1		5	5	4
Totals	3	12	4	12	4	5	2		3	6	5	2	40 18

Table 5 Entry qualifications other than GCE 'A' levels

A level pts	Awards					Total
	First	2(i)	2(ii)	Third	Pass	
<12 points	2	21	52	14	3	92
12 pts & +	4	34	52	9	3	102
Totals	6	55	104	23	6	194

Table 6 Degree awards: entry qualifications as 'A' level points

levels of achievement then it can be seen that mature students achieved a higher proportion (1:1.4) of these classes and a lower proportion (1:0.3) of the lower division than the under-21s. Furthermore, and measured on the same basis, the mature student out-performed the under-21 in six of the ten years of the study period.

Failure rate was decidedly higher among the younger entrants while they withdrew

from the course in only marginally higher numbers.

Tables 4-7 deal with various aspects of student qualification on enrolment. The 'standard' entry requirement included two GSE 'A' levels and the vast majority of successful entrants achieved these. Furthermore, recruitment policy ordained that preferred 'A' level subjects should be Geography, Art and Biology but that

Qualification	Award							Total
	First	2(i)	2(ii)	Third	Pass	Fail	Withdn.	
Foundation	1	2	3				1	7
City & Guilds		1	10	3		1	1	16
HND		4	3					7
BTEC		2	1	2		8	3	16

Table 7 Selected vocational qualifications related to degree class

whatever the subjects studied their points total should be at least 12. (i.e. Grade A=10 to Grade E=2). General Studies were not included. Although the record here is incomplete there is nevertheless sufficient data to produce some useful indications.

Firstly, it is perhaps significant that Geography was the most popular preferred subject although the course was widely perceived as a 'design' course and Art was the subject believed by many that might best reflect design potential. However, when the average points per subject are compared Art, with 5.1 points, heads both Geography and Biology with 4.6 each.

Table 4 shows that the greatest number of preferred subjects were acquired by entrants in 1986 but that the highest average of points per preferred subject was achieved by the 1989 intake which translated into some good degree results in 1992. However, this was not a consistent relationship throughout the study period and an analysis of Table 5 might provide part of the explanation.

The data in Table 5 show that those entrants with 'vocational' qualifications in addition to 'A' levels achieved a greater proportion of awards than those with 'A' levels alone.

If the data is compared with Table 3 it can be seen that age is not a significant factor here.

In Table 6 degree classification is related to 'A' level points score. It shows, perhaps surprisingly in the light of the usual entry requirement of over 12 points, that almost as many awards were made to entrants with under 12 points as over. However, it suggests that those with over 12 points and over were slightly more successful.

To complete this picture it is necessary to look also at other entry qualifications which here, in Table 7, are broadly classified as vocational. Again, no strong emphases or contrasts are observable but of the four key qualifications examined BTEC appears to have been the least appropriate preparation for the landscape architecture course.

Conclusions

These data represent the main academic achievements of students on the undergraduate landscape architecture course between 1986 and 1995, a distinctive period in the evolution of landscape teaching at Cheltenham. They reflect an early period of and transition adjustment from a non-degree awarding course to one where confi-

dence in the curriculum, assessment processes and personnel is established at a higher level. They show year-by-year variation consonant with fluctuating circumstances and quality of student intake, as well as consistencies sustained long enough to make secure comparisons.

It is hoped that the data contained in this

paper help inform future student recruitment, judgements concerning academic standards and provide a bench-mark against which later achievements may be measured.

Acknowledgement

Thanks to Bob Moore for help with the statistical analyses.

THE USE OF PUBLIC PARKS AND GARDENS OF BUDAPEST

Katalin Nagy

Urban 'green' spaces have multiple roles: ecological conditioning, visual-aesthetical and recreational. For a complete fulfilment of these functions in the life of the city, regular renewal and intensive maintenance of the existing parks and gardens and the creation of as many new public spaces are necessary.

The functions of these green spaces are changing continuously. Regular renewal of public parks is necessary not only because the facilities are becoming worn out but also because the requirements of the urban dwellers are changing in the course of time. Moreover, there has been insufficient research in Hungary into the detailed use of parks, the particular requirements of visitors, and the differences observed between the various types of open space.

In 1994 some preliminary investigations of the parks and gardens of Budapest were undertaken. This research involved personal interviews of users of the spaces, with the aim to collect data to inform future planning and rehabilitation decisions. The kind of information sought included the present uses of the open spaces, the particular zones of attraction, the range of visitors and the requirements and expectations of the citizens of Budapest. In addition the changing uses of the parks over recent years and the present functions were studied. It was hoped that the user survey would help to

determine and support objectives of urban development.

Methods and progress of study

Two parallel methods of investigation were adopted:

1. Observations: The number of visitors in each park was fixed by reference to tables according to the activities of particular age groups.
2. Questionnaire survey: Questions related to four categories:
 - zones of attraction,
 - current use,
 - requirements and expectations of visitors, and
 - personal data of visitors.

All observations and interviews were undertaken by landscape architecture students in the following open spaces in Budapest (Figure 1):

- city parks: Városliget and Népliget.
- a district park in a housing estate: Tétényi
- public gardens in the city centre: Károlyi kert and Hild tér.

Two complete series of results were obtained for the summer and autumn of 1994. Data were collected on different days (both weekdays and weekends) and at dif-

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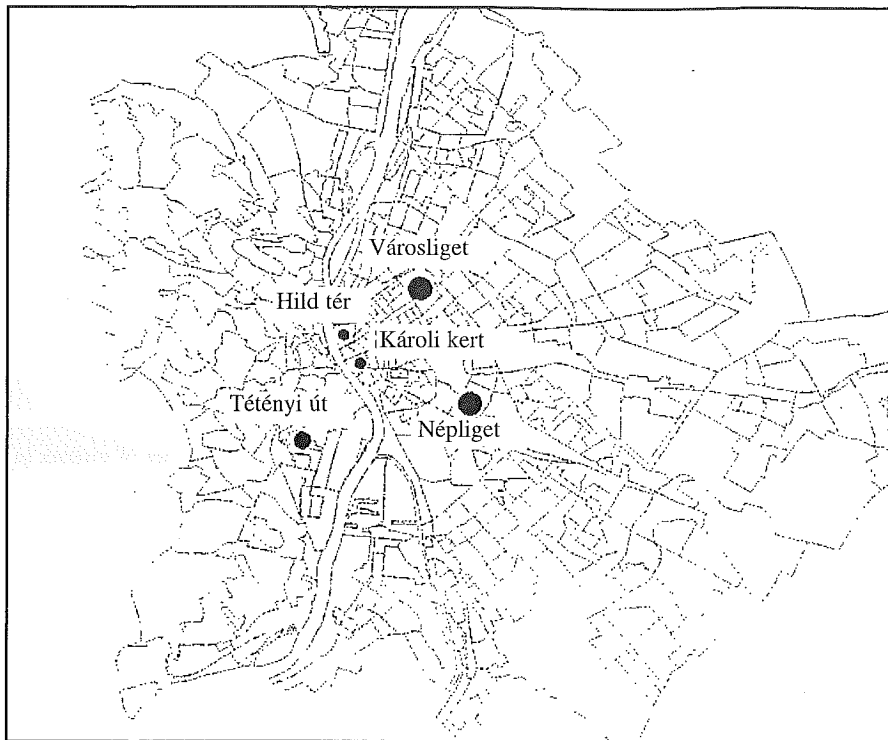


Figure 1 Investigated sites in Budapest

ferent times of the day (morning and afternoon). In total 1500 questionnaires and 128 tables were completed.

Discussion of results

1. Zone of attraction

It is evident that about half of the parks' visitors (49%) arrived at the parks on foot, 36% by public transport, 6% by bicycle and 9% by car (Figure 2). About 92% of visitors go to the parks from home, and three quarters of them can reach the parks within 15 minutes (Figure 3).

The zone of attraction of the Városliget park is shown on Figure 4. Mapping analysis of

visitors' residences has indicated that the extension of these zones for public parks depends on the following factors and conditions:

- * distance from residential area
- * land-use and proportion of built-up land in residential areas
- * setting of the park within the urban structure
- * availability of private and public transport
- * size and form of urban green spaces
- * historical traditions and reputation of the park

2. Current use

On the basis of local observations, 22% of

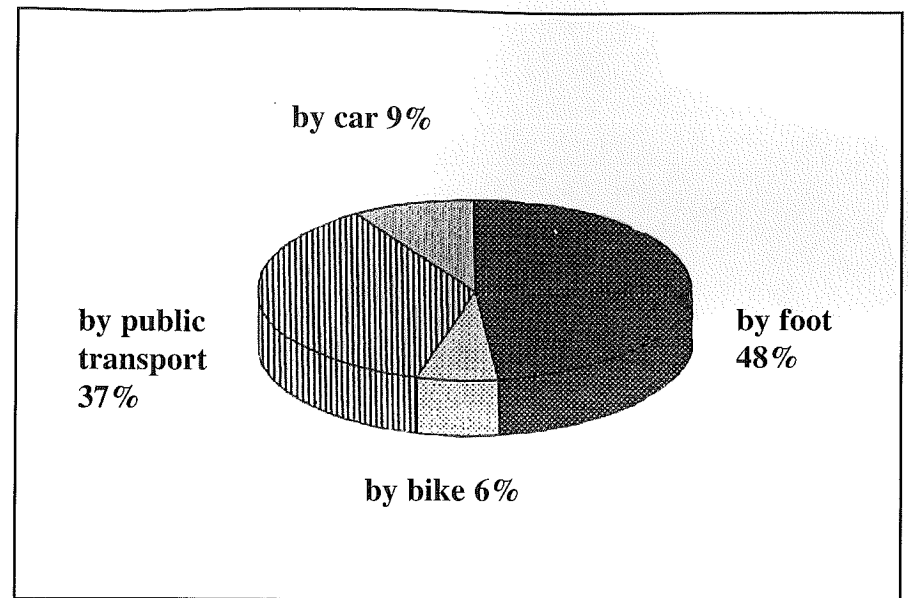


Figure 2 How do you approach the park?

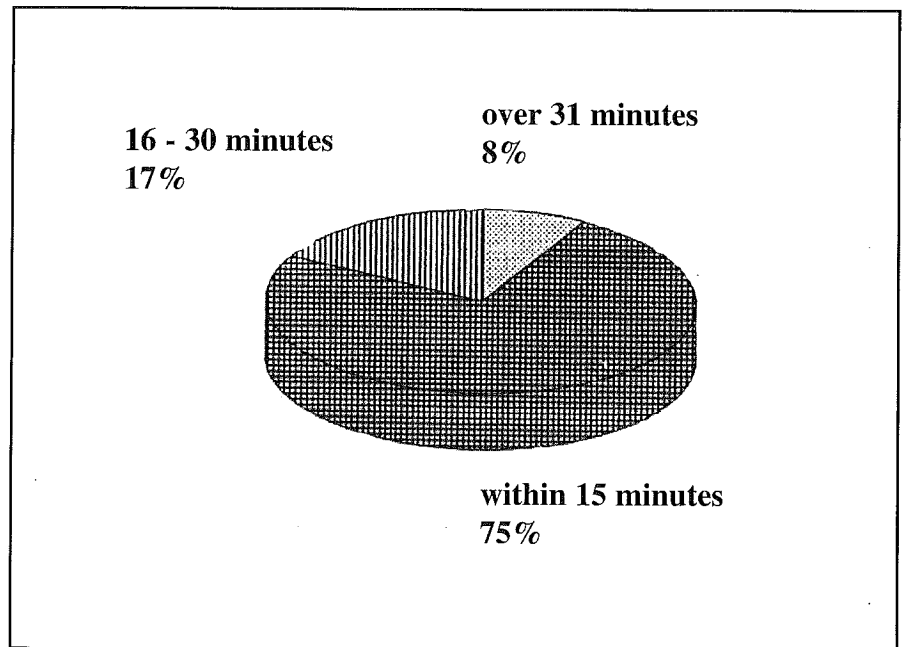


Figure 3 How long does it take to reach the park?

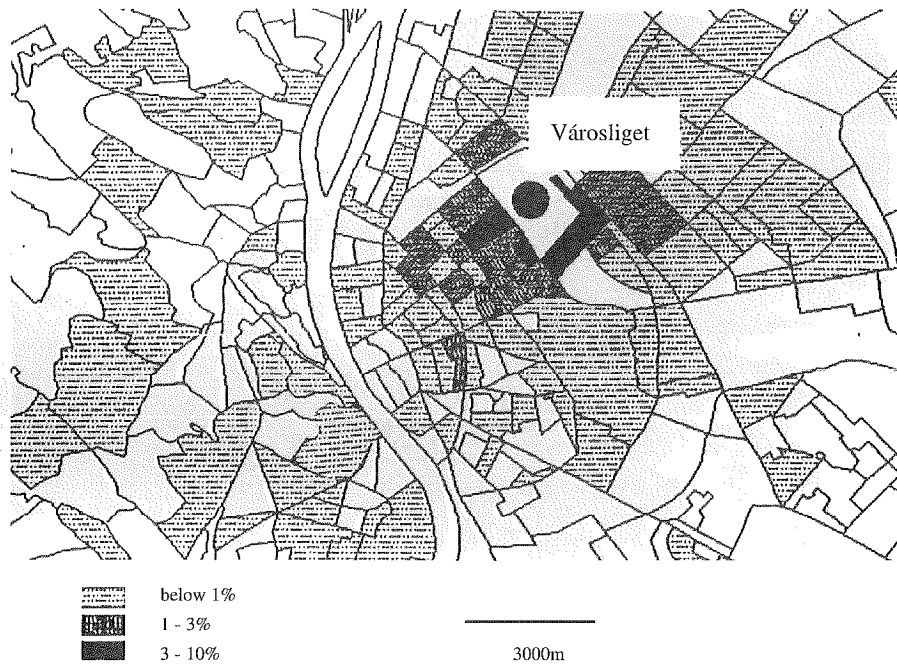


Figure 4 Residence of visitors (in percentage of all respondents)

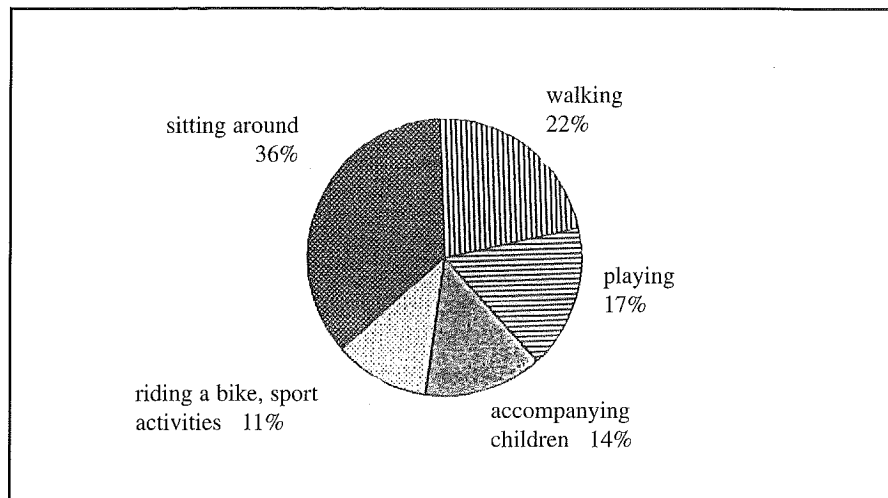


Figure 5 Percentage of uses in the investigated parks

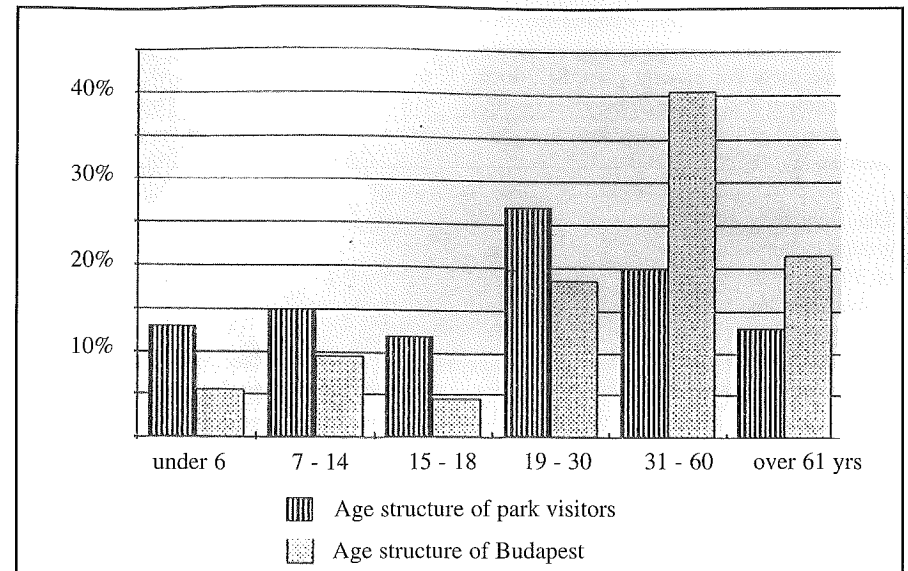


Figure 6 Frequency of visits by age groups compared to the age structure of Budapest

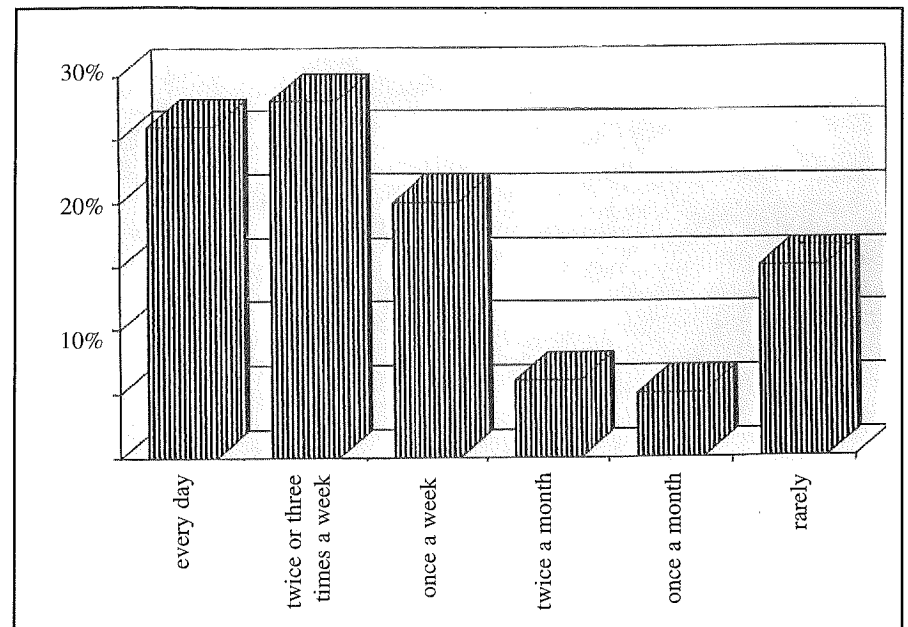


Figure 7 "How often do you go to the park?"

visitors use the parks for walking in, 36% relax, sit around, play cards and sunbathe, 17% use them for general play, 14% look after children and 11% ride bicycles or otherwise engage in sporting activities and exercise (Figure 5).

The frequency of visits by different age groups is shown in Figure 6. Under the age of 30 years, the share of all age groups is higher than their ratio in the age structure of Budapest would suggest. It seems, therefore, that the population over 30 had no time to visit parks or that the parks did not provide suitable facilities or amenities for them. More than half of the visitors (and in the specific cases of Károlyi kert and Tétényi út three quarters) come to the nearby park regularly, either every day or slightly less frequently, and mostly in the afternoon hours or at weekends (Figure 7).

The majority of adult park visitors comes for the fresh air or to accompany their children. About one quarter of the park visitors consider the park as a place for meeting and talking (Figures 8 and 9).

3. Satisfaction, requirements and expectations

Nearly half of all the visitors were only partly satisfied with the parks of Budapest. About 55% of visitors complain because the parks were not clean, and many wished for more water features (lakes, basins and fountains) and more flowers. One in four respondents considers it important to have park-keepers employed.

Our survey also tried to discover what kind of new facilities and programmes are required by the urban population in the city parks. About a quarter of the visitors are not

attracted by 'novelties', while others have suggested the desirability of more playgrounds (with the possibility of sports and play-equipment hire), more open-air exhibitions and pavilions for outdoor events, smaller buffets and restaurants.

On the basis of the study, it can be emphasised that the park visitors in Budapest do not wish any basic changes in the urban green spaces, merely the potential to more fully utilise the opportunities offered by the parks. It also appears from our study that a number of city inhabitants regularly visit the parks and gardens of Budapest, with 'everyday recreation' as the dominant use and satisfying mainly weekday demands, such as visiting with children, walking the dog or seeking opportunities for meeting and talking.

This 'meeting point' function determines the present day role of the city's green spaces to a substantial extent. Public parks and gardens are regarded as neutral meeting places. This role is currently on the increase and so it can be stated that urban green spaces fulfil the functions of the 'agora'.

Regular park visitors tend to visit the park situated in close proximity to their homes. People in Budapest are familiar with several parks, but they clearly prefer to visit the park or garden within the shortest time from home, a fact confirming that neighbourhood parks within residential areas are indispensable.

For the elaboration of certain planning directives, it would be important to study other types of urban green spaces (squares, forest parks, open-air swimming pools, and other excursion places) both in Budapest and in other comparable cities.

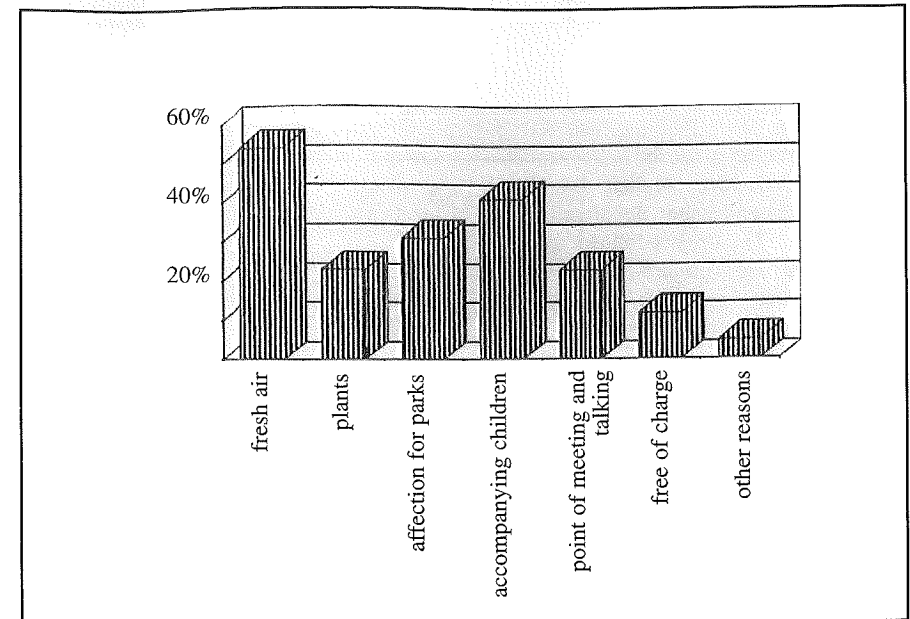


Figure 8 "Why do you go to the park?"



Figure 9 A weekday morning in Károlyi public garden

THE URBAN PROJECT

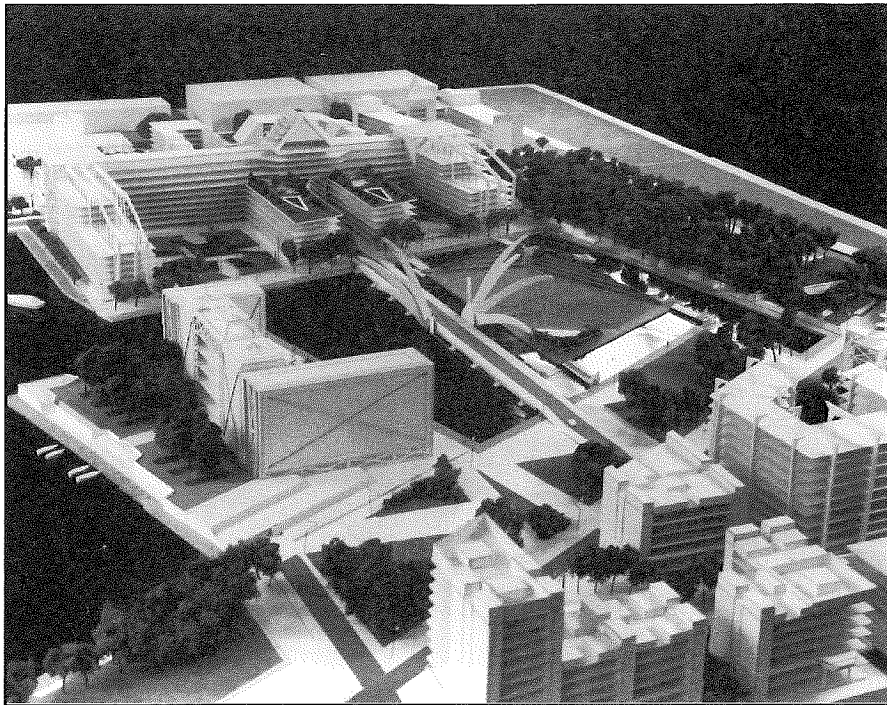
Mark Cowell

The Urban Project is carried out by students in the second year of their BA(Hons) Degree in Landscape Architecture at Cheltenham. The Project follows on from some urban-based projects earlier in the year, particularly in terms of developing some of the theoretical approaches looked at in 'The Human Habitat' module, and applying them to an actual 'live' site.

The site chosen is usually a significant urban development opportunity. In the recent past, this has been the Royal Docks in London Docklands. It is adjacent to

London City Airport, the East River Crossing, the Thames Barrier, and the site for its associated park.

Students work in small groups to propose conceptual schemes for the site, the best of which are combined into a Year Group model, as shown in the photograph, which is then designed and constructed in detail by the whole group who have to negotiate and manage the collective process. Each student then designs a selected small area, which forms the basis for hard and soft detailing in the next module.



The 1996 urban model

SUNRISE ON THE HILLS

Henry W Longfellow

I stood upon the hills, when heaven's wide arch
Was glorious with the sun's returning march,
And woods were brightened, and soft gales
Went forth to kiss the sun-clad vales.
The clouds were far beneath me; bathed in light,
They gathered midway round the wooden height,
And, in their fading glory, shone
Like hosts in battle overthrown,
As many a pinnacle, with shifting glance,
Through the gray mist thrust up its shattered lance,
And rocking on the cliff was left
The dark pine blasted, bare, and cleft.
The veil of cloud was lifted, and below
Glowed the rich valley, and the river's flow
Was darkened by the forest's shade,
Or glistened in the white cascade;
Where upward, in the mellow blush of day,
The noisy bittern wheeled his spiral way.

I heard the distant waters dash,
I saw the current whirl and flash,
And richly, by the blue lake's silver beach,
The woods were bending with a silent reach.
Then o'er the vale, with gentle swell,
The music of the village bell
Came sweetly to the echo-giving hills;
And the wild horn, whose voice the woodland fills,
Was ringing to the merry shout
That faint and far the glen sent out,
Where, answering to the sudden shot, thin smoke,
Through thick-leaved branches, from the dingle broke.

If thou art worn and hard beset
With sorrows, that thou wouldst forget,
If thou wouldst read a lesson, that will keep
Thy heart from fainting and thy soul from sleep,
Go to the woods and hills! No tears
Dim the sweet look that Nature wears.

1996 DISSERTATIONS: BA Hons (Landscape), Cheltenham

The following is a list of the successful degree dissertation submissions for 1996. These documents can be consulted in the College library at Francis Close Hall and abstracts may be obtained from the Librarian, or the Editor, on receipt of a stamped addressed envelope. Titles and abstracts are also stored on a computer database in the Dept of Countryside and Landscape enabling key-word searches to be undertaken. A subject listing of past dissertations is also published: R. Moore, *Landscape Architecture Dissertations 1982-94, Subject Index*.

David ACHESON	Promoting a sense of place. An investigation into regional identity.
Rachel AUSTIN	The fifth facade. A study of the applications of green roofs.
Janet BAKER	The urban common: myth or reality
Jenefer BARTON	Beyond the hedgerow. Landscape strategy for housing development
Nathan BROWN	The relationship between landscape architects and artists within contemporary outdoor sculpture
James BULLOCK	Landscape architecture for a new age of nuclear power decommissioning
David BURKE	Revegetating the sand waste tips formed by the china clay industry
Alexandra CATHERINE	Ecological evaluation of urban open spaces: a methodology
Allister COONEY	"Interim" landscaping for urban clearance areas
Gavin DAVID	Within the postmodern labyrinth. Towards a poetics of landscape architecture
Richard DUNN	Contemporary design and restoration of British canals for the 21st century: a look to the future
Sophie DYER	The benefits of vegetation on building facades
James FAIRCLOTH	Urban edible landscapes
David GILLINGS	Inclusion not exclusion. Designing public open spaces for the elderly
Bethan GOLLAND	A design challenge: the changing nature of public open spaces in the 21st century
Tom HENLEY	The landscape architect's role in road schemes

Neil HENNESSEY	To investigate the role that plants can play within an interior environment
Steven HOLMES	The Earth Centre, sustainability and the new millenium
Neil JONES	Public participation in the design of urban public open space
James LAWRENCE	Tree form in urban landscape design
Mark LEADER	The functional possibilities associated with designed urban water features, aimed at maximising human appreciation
Juliet MATTHEWS	Learning from DPZ design-coded settlements
Alethea OTTEWELL	The integration of landscape and architecture
Margaret PERRY	Revival of the forest: is there a case for forest expansion in Britain?
Roland RÜMLER	Facade planting
Joanna SARDELLA	Landscape architecture in the late 20th century: soul enhancing or soul destroying?
Alastair SHOVE	The effects of "environmental assessment" regulations on landscape architects and their design process when working with quarries: a study of eight landscape architects
Elizabeth SYMES	How can landscape architects ensure the ultimate success of land reclamation projects?
Juan Enrique SIMO-PEREZ	Sustainable tourism development
Luke SIMON	To explore the idea that landscape design does not show the same types of innovation as found in other design activities
Zoë SPRAGUE	Community forests: is the present land ownership an opportunity or constraint in their establishment?
Marcel WATKINS	Funding the on-going landscape

REVIEWS

ECLAS Conference, November 1995, Barcelona

ECLAS is an organisation whose acronym stands for the European Conference of Landscape Architecture Schools. Its intention since it began has been to provide a focus for development and cooperation in the teaching of landscape architecture in Europe (the ECLAS definition of which includes Israel but not, say, Turkey or any North African country which are somewhat closer to the physical 'Europe').

The annual conference of ECLAS is a vehicle both to conduct business/listen to formal presentations as well as a means to make/renew friendships with educators from many different European landscape schools and engage in informal discussions about landscape teaching, creating exchanges, etc.

The 1995 Conference was held in Barcelona, courtesy of the Universitat Polytechnica de Catalunya, in whose School of Architecture much of the conference was held. At the polytechnica, landscape architecture is taught at a postgraduate level primarily to students who have opted for this after five years of architecture. This is a quite different to our current UK practice, although it is rather similar to the route that numbers of British students of architecture took in the 1960s when many of them went to the States to study landscape at this level. Barcelona is also known, in the most recent past, for the extraordinary programme of parks and public space creation that followed the election of Maragal as Mayor in 1982 and his

appointment of Oriol Bohigas as Director of Planning. These works formed the backbone to the conference in terms of visiting landscape works.

The principal theme of the conference, however, was 'Teaching from Experience' – the definition of which activity the organisers left fairly vague in their original call for papers and this was reflected in the submissions that formed the main part of the conference. The word 'experience' was interpreted as that 'of the teacher', that 'of the student' and that 'of the user/client'. This led to talks ranging from how students could be helped to externalise their own experiences of landscape, the importance of physically being in the landscape in order to learn things from it, through the involvement of students with the end-users of their work to the usefulness in teaching of staff having a substantial practice background.

These papers were interspersed with others, principally those from our host country, which sought to discuss the development, practically and theoretically, of landscape architecture in Spain. This was supplemented by a series of brief case studies of the contemporary Catalan landscape design projects mentioned above, presented by their respective designers and which formed the basis of various conducted site visits.

For various reasons, this gave the conference a slightly schizophrenic character brought about by this 'process'/'project' split which further emphasised what was apparent from the backgrounds and aspirations of the different schools of landscape architecture. In order to understand this, it is

necessary to consider the nature of the institutions in which European landscape architecture is taught, staff and student interests and, to some extent, the intellectual climate that prevails.

Certainly in Spain, at the Universitat Polytechnica de Catalunya, landscape architecture is heavily focused on architecture and urban design. Oriol Bohigas, the dynamo of Barcelona's open space programme, was formerly Head of the School of Architecture and many of the designers who have given Modernist form to his ideas and created the present face of Barcelona's public realm are ex-students or colleagues. The debate here, although more influenced than many think by factors of natural process, is much closer to that of the architectural avant-garde and this was reflected in the contributions of the Spanish and the (unfortunately very few) French at the conference. This approach of the 'Southerners' was contrasted with that of what I might call the 'Northerners', were I to be able to include in this block Anglophone guests at the conference from Australasia and North America. This block, which also included North Europeans and Scandinavians was effectively Anglophone (because everyone spoke it) and was also characterised by a generally much more pragmatic approach, related to user-based design processes with a focus on 'ecological' approaches and larger scale 'planning' rather than site specific work. Again, if one looks at the institutions these emanate from, they are predominantly agricultural, horticultural or technical universities.

I don't wish to overplay this point but it was, I think, one of the most potentially revealing about the way in which landscape architecture and education has developed in Europe. It was also the area that both 'schools of thought' might want to look at when critically evaluating their approaches.

Certainly in the UK, landscape architecture has suffered through a lack of identifying and creating for itself a clearly argued rationale for its role within the 'built environment' disciplines. This has been matched by the low level and frequency of critical intellectual debate within the profession. Whilst this is somewhat more advanced elsewhere on the Continent, this and other visits I have paid to Barcelona indicate that the wider issues of cities' development and their relationship to natural processes are only gradually being taken on board now and have, for example, played little part in the otherwise stunning outburst of public space design which has made Barcelona the envy of us all.

I don't intend here to offer a review of all the papers presented. I have copies of all these should anyone wish to read them (with the exception of the 'case studies' for which no papers were produced). My own paper was based on the use of 'experience' from my practice experience, especially that of 'community-based' approaches and how this led me to see the increasing value of the 'experience' of 'others' input into the design process and to question the norms of the 'designer' as 'instrumental problem solver'. This became the basis for 'experience' to influence teaching, or more usefully, learning.

Of all the the other presentations, perhaps the most stimulating was that of Dr. Simon Swaffield of the landscape architecture Course at Lincoln University in New Zealand. As a 'guest' speaker at the conference his paper brought together issues of the changing conception of the designer in late 20th century multicultural societies with some of the most compelling arguments for the use of 'reflective' education and 'learning by doing'. Simon later briefly visited me here in Cheltenham and sat in on tutorials for the 3rd level module 'Design

with the Community' to which he made valuable contributions.

The lessons for ourselves from this conference are that we will all benefit from increasing contacts with our Continental colleagues and that if these can lead to opportunities for student exchange and joint programmes of study then all the better. Additionally, we need to reflect on how the Barcelona programme of public space projects has galvanised the city, learn from its shortcomings and look to how such interventions might be facilitated in the UK. Finally, we need to reflect on the kind of 'critical' views of landscape architectural education practices expounded by Swaffield if we are to produce students able to go beyond normative 'skills and competencies' and have a real impact on the environment into the early 21st century.

Mark Cowell,
CGCHE

CAD FOR THE LANDSCAPE OFFICE Landscape Institute Technical Committee Seminar, Bristol, April 1996

On the 24th April this year the Landscape Institute held a seminar entitled "CAD For The Landscape Office", this being the second in a series of one day technical seminars.

The principal aim of the seminar was to demonstrate to practitioners the range of software now available and its potential contribution to landscape design. It was intended that the seminar should specifically target small and medium sized landscape offices who might be looking to upgrade or purchase new soft or hardware. The semi-

nar proved to be extremely popular and attracted nearly one hundred delegates, the majority of whom came from the private sector.

Tim Gale, Chair of the Landscape Institute's Technical Committee, introduced the programme for the day which comprised a series of seminars followed by software demonstrations. Before Tim handed over the day's proceedings to **David Jarvis**, who chaired the event, he briefly reported on the findings of the Institute's recent survey into the use of computers in landscape practice.

Unfortunately, a detailed analysis of the results could not be completed in time for the seminar, but it was promised that the findings would later be reported in some detail in *Landscape Design*. However, Tim explained, from the initial findings it would appear that surprisingly there has not been a significant growth in the number of practices using CAD since the last survey 1994. AutoCAD remains by far the most popular CAD application although it was interesting to learn that MiniCad, (which at the time of the survey was only available on the Macs) was second most popular, ahead of Keyscape, LandCADD and Microstation.

The growth in the number of practices using MiniCad, a comparatively inexpensive CAD application, may reflect the growing impact of cheaper software which addresses the needs and resources of smaller landscape practices.

The first presentation, entitled "Bright as a Button", was given by **Bob Moore** of Cheltenham and Gloucester College of Higher Education. He spoke about the range of software applications now available to landscape practices and the need to integrate these into design education. This was a lively presentation which provided

those delegates who were new to the subject with invaluable background material.

It was a shame that there was not more time following this presentation to discuss the role of landscape schools and the content of the training that they should provide. Schools clearly have a responsibility to both the students and the profession to familiarise students with the technologies that are being used in practice. However, and perhaps more importantly, the schools should also be exposing their students to the latest software innovations which have not yet been adopted by the profession. This would enable the schools to act as a testing ground for new technologies and the students who then go on to enter the profession to act as a link in communicating new developments.

Unfortunately at the moment the only real innovation that is taking place is happening in a minority of specialist landscape practices. Instead of the universities and colleges leading the way, they are in fact struggling to keep pace with developments in the profession. If landscape education is going to continue to be in a position to produce students who are as "Bright as a Button" there will need to be a significant improvement in the resources available.

Following on from Bob Moore, **David Shilton** and **Michael Purdie** from Wolverhampton Metropolitan Borough Council talked about their experiences of integrating CAD into the landscape office. For those delegates who were about to embark on this path it provided an invaluable checklist of the do's and don'ts for purchasing soft and hardware and how to develop a staff training programme.

Next up, **Mark Martin** of Derek Lovejoy Partnership gave a detailed account of the technical issues involved in creating convincing photomontage to visualise develop-

ment proposals for public enquiry. At an event where delegates were in danger of needing the computer nerds' dictionary for the latest techno speak, it was reassuring to learn that a simple helium filled balloon can still play a key role in achieving the perfect photomontage.

Considering that the main focus of the event was intended to inform practitioners of the range of software options available it was surprising that by this point there had been virtually no mention of anything other than standard landscape software solutions. Fortunately **David Watson** (landscape architect, CAD consultant and part time lecturer at Greenwich University) put this right with an extremely informative and well researched presentation which outlined a selection of some of the low cost CAD, graphics and photo editing applications now available. In particular David drew attention to CorelDRAW!, a graphics application, which he considers to be as important as AutoCAD in a landscape drawing office.

It was refreshing to see a presentation that informed practitioners that it was no longer absolutely necessary to pay £3,150 for AutoCAD when your CAD requirements might be perfectly well serviced by an application like TurboCAD, which is available for less than £100 and which can exchange native DWG AutoCAD files. I believe that the landscape industry in the UK has for too long been dominated by a handful expensive software applications whose sophistication goes way beyond the needs of many practices.

This does not appear to be the case in the United States. I was interested to read in a recent article in the American journal *Landscape Architecture* an account of a design competition where practices were encouraged to develop a design solution using computers. It was interesting to note

the wide range of software and hardware solutions that the different practices applied in developing their design. I would very much doubt that if a similar exercise took place in the UK if we would see the same diversity of applications.

The final presentation by **Peter McGuckin** of Insite Environments Ltd, winners of the 1995 Landscape Institute Sponsors' Award for 'the best use of computing technology in visualising a project', was intended to leave us in awe and for many of us it succeeded. This well rehearsed virtual reality presentation brought into focus what is already achievable in this area and where exciting developments may lie in the foreseeable future. How long it will be before we see the widespread use of such tools, however, gives cause for concern. For example, in the last two or three years there have been significant developments in 3D modelling and animation software but the profession would still appear to be predominantly 2D oriented. This reluctance to embrace the new technologies may however reflect the type of service that clients are prepared to pay for rather than the aspirations of practitioners.

The day's event concluded with presentations of Keyscape, LandCADD, Microstation and Siteworks, MiniCad, GTX Rastercad and Artisan.

The most notable presentation was by Calnan Scott Design Ltd who were launching their new CAD product, Artisan, a brand new software solution specifically developed for the landscape profession. This was one of the main talking points of the day as it emerged that John Scott, previously one of the driving forces behind Keyscape, had split with Keysystems and was now developing Artisan through Calnan Scott Design Ltd. It will be interesting to see how Artisan differs from other

AutoCAD based products and the impact it will have upon the profession.

In conclusion I felt that the day's event satisfactorily achieved its stated aim of disseminating information on CAD and the range of other software solutions for the landscape office. For those who still haven't jumped on the technological roller coaster David Watson provided invaluable advice and information on low cost starter options, while the speakers from Insite Environments gave us a taste of what we might one day achieve.

On the journey back to Sheffield however I reflected further on the day's proceedings and concluded that the event could have had a more ambitious agenda and could have achieved more than it did.

It is after all unusual that events are organised at which so many landscape architects with an interest in CAD come together; and when they do, as much as possible should be made of the opportunity to discuss and identify how the profession will in future respond to technological developments. For example, there is a need to clarify the role of the educators, to identify how CPD might best be delivered and perhaps most importantly to define what is wanted from tomorrow's software innovations. Unfortunately the opportunity to determine some form of consensus in these and other areas was missed, and may not come again for another two years.

*Andy Clayden,
Sheffield University*

ZAPSCAPES CONFERENCE, Larenstein University, Arnhem, Holland, 26-27th September 1996

Some thirteen years ago, Strathclyde University in Glasgow staged the Green Chips Symposium, heralded as the first major conference in the UK to target the landscape profession with computer applications. It was certainly ground-breaking: a programme of lectures and demonstrations covering modelling, visualisation and databases. I remember it as being very stimulating, but at the same time disappointingly architecture-led. Mini-computers were the order of the day and I doubt if AutoCAD got much of a mention. Computers and computing are now *de rigueur* in most landscape offices. CAD and GIS are the acronyms to brandish in your promotional material. But how far have we come and what is now on the horizon?

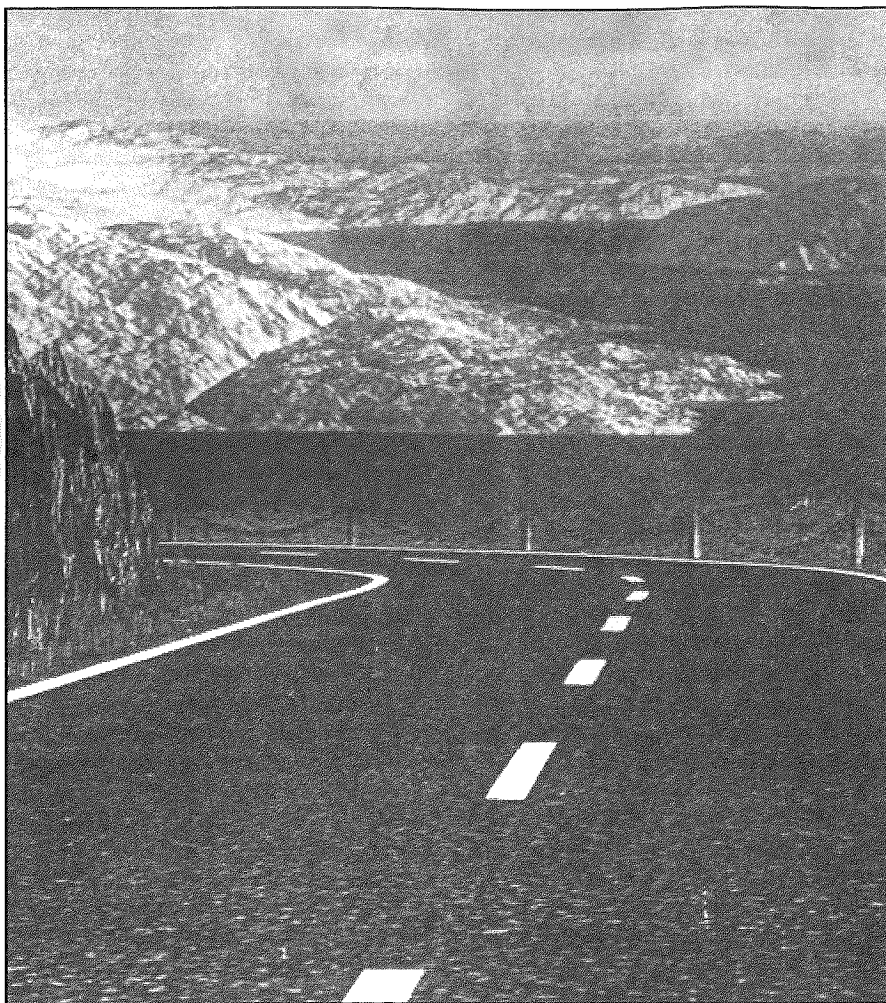
Last September Larenstein University and the EMLA Consortium (European Masters of Landscape Architecture) rose to the challenge and mounted another major international event, with a catchy title and a programme organised under the three themes of computer-aided analysis, design and visualisation. Over 200 delegates attended, representing both theory and practice, and from other environmental professions, not just landscape architecture. The main day's session of lectures took place at the 'House of the Province of Gelderland' in Arnhem. Other sessions were held at the university campus and, on the last day, on board the *Ijsselstroom*, a Rhine cruiser.

Following the formal welcome to the event by **Jef de Gryse**, chairman of the European Foundation for Landscape Architecture, **Jan Drupstein** gave a very visual presentation of his work in the graphics design field, particularly his use of video and chroma-key techniques. While I found it hard to see

any obvious landscape applications, he clearly showed how to extend the bounds of the technology in a way that could be inspirational: in the atmospheric effects created by colour and texture and in the influence of music on what is observed – moving through landscapes in real-time, syncopated by a musical score.

With heads full of surrealistic images, we were then plunged into 'total immersion' theory by **Stacey Spiegel** (University of Toronto and Museum of Science and Technology, Alberta), who offered the advantages of cyberspace in accessing information "more than what we can see". He illustrated his talk with slides, video clips and computer montages taken from the Safe Haven Project in Rotterdam, which attempts to express the culture of the city in ways which offer profound insights for urban designers. It was a difficult concept to grasp without the virtual reality experience, and, as it was late evening by now(!), I reserved my full judgement till the last day when I visited the project exhibition (see later section).

The conference resumed the following morning with a word of welcome from **Dr Leendert van der Bosch**, President of the Executive Board of Larenstein University, followed by the key-note lecture given by **Professor Steve Ervin** of Harvard University. This was in the form of an historical overview of computer developments in the field of landscape architecture, punctuated with some further description of milestone events, most notably the picture of *The Road to Point Reys*, the first truly computer-generated landscape (illustrated). Prof Ervin then went on to suggest that the computer offers the designer an "ideal elastic environment for modelling", and, as the soft- and hardware advances, fractal landscapes and virtual environments will be available to the smaller design practices. He



The Road to Point Reys

(Computer image (c) LucasFilms, 1986)

raised the oft-repeated criticism that computers debase design, but argued for better control of the technology by the designers and for maintaining the strong traditions of landscape architecture: that is, it is as much about ideas, poetry, culture as it is about technically-correct landscapes. The computer is without doubt a powerful aid in landscape visualisation, but as it is more at home with platonic solids – regular geomet-

ric shapes – there is still marked limitations in representing vegetation and water features adequately. There are also the dynamic qualities of growth and movement which need to be integrated into a modelling environment. In conclusion he talked about the current fashion for multimedia and how landscape architecture, having always been a multimedia activity, should be at the forefront of such technological advances.

Computer-aided analysis

In his introduction to this session, **Professor Meto Vroom** (Wageningen University) explained the obvious difficulties in separating analysis, design and visualisation. They are inextricably linked and are not hierarchical. He went on to applaud the rise of GIS, particularly in visual impact studies and landscape planning, claiming that the computer now bears the hallmark of scientific proof. This objectivity must not be accompanied, he argued, however, by the total loss of manual control of computers.

Professor Rodney Hoinkes, from the Centre for Landscape Research at Toronto University, was next up and discussed the need to “understand a landscape” and described a carefully selected set of projects undertaken in Toronto to illustrate some ways of doing this: terrain models draped with pollution emission zones; underlying soil type represented by the appropriate shading of a 3D building model; historical city scapes temporally overlaid to display view zones and conservation areas; shadow casting software identifying height limits for development. Dr Hoinkes recommended the integration of CAD and GIS and suggested relevant databases could be obtained from websites on the Internet.

Professor Steenbergen (of Delft University) presented his paper in Dutch, which was consecutively translated, unfortunately prolonging the presentation. His particular research field was the analysis of historic landscape gardens and more particularly the sympathetic integration of Italian villas into the landscape. He showed how computer techniques were able to expose and accentuate both the wider landscape context – through terrain models and lines of sight, as well as specific design details – *trompe l'oeil* effects and the influence of building levels.

Computer-aided design

This session was chaired by **Mrs Tracy Metz**, a journalist, who raised a number of issues including, *inter alia*, the uniformity of computer designs from many proprietary CAD programs and the problem of ‘buildability’ of complex computer-generated forms. This latter point was well exemplified in **Kas Oosterhuis**’ presentation, while **Gary Morin** from AutoDesk (unintentionally) illustrated the former by concentrating on the ‘bread and butter’ facilities offered by CAD. His talk and demonstration was straight-forward, informative and (happily, for once) kept within the time allocation. With the slogan ‘Complexity will become common-place’, Kas Oosterhuis, an architect from Rotterdam, contrastingly dealt with pushing back the frontiers of (largely architectural) design. He also showed how the Internet was used by students in different countries to interact on each others’ designs. But for me the impressive part of his talk concerned a dynamic CD-ROM based presentation of designing a housing estate in Groningen – the computer was used to appraise the site, to “build the landscape”, then finally to locate the houses.

Visualisation

For many, sophisticated presentation of design solutions is the major use of computer systems, but as **Maurice Nio** (University of Delft) stated in his introduction to this session, it *is* expensive and it does not add anything to the creative process. He went on to state, however, that there *is* a demand today for photo-realism, and pondered on the prospect of truly innovative developments: tactile landscapes, ‘atmosphere’, smells, holographic effects.

Some of these ideas were developed by the next speaker, **Peter Mulder** (Dutch Broadcasting Company, Interactive Lab),

but it was an over-long presentation of video-computer footage of occasionally relevant images (tree superimposition) but largely unconnected chroma-key techniques for dance animation.

It was with some relief that the next speaker, **Mathieu Derckx** (University of Wageningen), gave us "something more practical" and showed how AutoCAD could help in landscape architecture and urban planning expositions. His watchword was 'simplification' and he described in some detail how complex drawings, the result of extensive data sets stored on different 'layers', need to be presented efficiently and more crisply. He even dared suggest that output drawings could be rendered by hand, although he did say that paint packages like CorelDraw! could texturally enhance the CAD drawings and provide a unique signature or style of the designer.

Plenary

An hour or so in the evening, after dinner (not the best time), was allocated to a plenary session with a few guest speakers on stage. Prof Steve Ervin drew some useful threads together from the various offerings and this prompted a wide-ranging and fruitful discussion. This was dominated by a debate on the 'negative' aspects of computers – they are not 'smart' and need careful control, they are still mainly used as drafting rather than designing tools, the important tactile experience of designing with pencil on paper is totally lost, and some computer analyses are misleading (though not strictly false). The general conclusion reached was that the landscape designer needs to have a very critical attitude and to be sufficiently competent to be a 'director of the process'. And this did not imply the need for state-of-the-art technology since much could be achieved in a small office running basic CAD software.

Floating Market

The conference concluded the following morning with a boat trip up the Rhine to Doesburg – a social event, nice views, good food and a final opportunity to look at some commercial software demonstrations, including photomontage techniques and a virtual reality system. This was an excellent way to wrap up the three-day event as it also gave the delegates a more informal opportunity to strengthen the new contacts already made and discuss common interests.

Safe Haven Project

Inspired by the opening night's lecture, I chose to experience the 'total immersion environment' on my way back through Rotterdam. The Safe Haven (or Harbour) Project centres on the development and use of a real-time simulator located in one of the port authority's warehouses. Physically, it consists of a capsule capable of triaxial movement and holding 15 people, who have all-round vision through the windows and on to the inside walls of a cylindrical chamber. On these walls a seamless and changing 'landscape' is projected. Inside the capsule are a number of display monitors giving more immediate access to graphical data.

In essence, the environment which is created is the inside of a heart, which represents the living city of Rotterdam. Four chambers are linked by 'coronary arteries and valves' and the capsule is steered through this cyberspace with a 'spaceball' controller or by using keyboard commands.

Now, what is observed is not a virtual landscape in the more usual sense and any connection with a real place is achieved through interaction with images of people talking about the city. These images, or video clips, are accessible within the cham-

bers of the heart, each representing an aspect or theme of the city. Initially out of focus, they slowly sharpen as the gentle movement of the capsule takes us ever closer. Then targeting one image in our sights ('zapping it'), the video film is immediately replayed on a monitor within the capsule. The commentaries are personal views of city life: recreation, local economy, housing, whatever. This is real people talking about Rotterdam. You, the navigator, choose which theme you want information on and select your own interviewee. It is extremely difficult to absorb all the information transmitted, even in the hour or so I spent onboard, but trying to rationalise the total effect I feel that there are different levels of experience.

Firstly, there is the sensual one of merely floating in a rich landscape of colours, organic forms – a truly psychedelic effect. Secondly, within the capsule the monitors relay a wealth of facts, views, visions of Rotterdam. And thirdly, after several minutes a strange empathy develops with the people of Rotterdam – all other thoughts are excluded from what is in effect a private universe. Your attention is fixed and it is difficult not to be enveloped by the medium.

On the night ferry home I pondered on my first VR experience – at once complex, disorientating yet moving and memorable. But how this new technology can be put to good use, especially in landscape designing for example, is the \$64000 question.

Robert Moore,
CGCHE

City as Landscape: A Post-Postmodern View of Design and Planning by Tom Turner, E and NF Spon, 1996

Before writing this review of Tom Turner's 'City as Landscape', I tried to ask myself who is this book aimed at, and what does it aim to do? Now, having read it, I am still no nearer answering either of these questions with any great certainty.

It draws on his well-documented approval of Alexander's 'Pattern Language' and seems to see in current and future GIS systems a means whereby the 'layered' multiplicity of Alexander's approach can be brought to fruition as the optimum means of planning and design. For what this book aims at, if nothing else, is an argument for a kind of general pluralism in all things and a rejection of positivist meta-narratives. It is at this point that it makes its Modernist/Post Modernist connections, identifying the former as responsible for the 'big simple' solutions to complex problems that have failed us throughout the twentieth century and the latter as a better, but rather chaotic, response in need of further development. Hence, the rather trite 'Post-Postmodern' of the book's title.

It is at this point that many of the difficulties start. Turner is clearly well-read, references and asides litter the book, but, in my view, he takes a rather limited view of the nature of the Modernism/Post Modernism debate. With him, Modernism is too closely associated with only bureaucracies, top down univalent, technocratic solutions looked at from a few privileged positions. None would deny that Modernism *has* had these characteristics, but one only has to read either Baudlaire or Berman to realise that Modernity has much more to offer and is more closely related to the liberating diversity of Post Modernism than Turner would have us believe. Likewise, his read-

ing of aspects of Post Modernism seem to me to be rather overly optimistic in their faith (and a lot of this book is based on faith rather than evidence) that the deconstructive fragmenting effects of Harvey's 'space-time compression' will bring us to the sunny pluralist uplands. Perhaps he should have considered Post-Modernism more as a condition – a state of things – a set of relations that has its roots in the economic developments of Modernity but has found new, and potentially highly disruptive, ways of developing the economic and cultural hegemony of the few, via deregulated supra-national agencies. From this perspective, things look far less positive than Turner suggests and this is why the book, for all its criticism of Modernist approaches (Survey-Analysis-Design gets a predictable bashing), is written from a curiously Modernist perspective. It is full of the same faith in a wonderful future, exhortations to do what it recommends, lots of 'shoulds' and 'why nots?'. It is, perhaps, harder than one thinks to break free of the norms that were prevalent in one's formative years.

However, let us not carp too much. Turner addresses some important points in this book which contains some poignant moments. He raises issues of concern to us all but, frustratingly, with I imagine the space restrictions of this relatively small volume, does not pursue them in the depth that we, and probably he, would wish to. Consequently, this is a very useful book to dip into, to follow leads from that stimulate thought but a very difficult one to get a sense of continuity from, even allowing for the fact that it is really a collection of essays. Is this 'resistance' itself a Derridaesque attempt to deconstruct the formulation of the meta-narratives and deep structures in the mind of readers that this book both promotes and decries?

If the 'expert' author of the environment is

dead and is to be replaced by an infinite number of 'authors' of the world, what kind of story is ultimately going to get told? As has been said before, 'when men dispute as to their freedom, they seldom get more than a new set of masters'.

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The 1996 Land Use – UK Survey, Preliminary Results, Geographical Association, 1996

This publication summarises a project developed by the GA to "stimulate interest in Britain's contemporary land-use, to discover the views and visions of young people about the environment at the present time and to provide an enjoyable and educational vehicle for purposeful fieldwork..." Like previous land-use surveys (Stamp, Coleman), it mobilised teachers and students from a variety of schools and colleges to undertake the necessary fieldwork, but by means of kilometre-square sampling rather than comprehensive nationwide cover. The Cheltenham and Gloucester College of Higher Education was allocated a number of rural squares on the dip slope of the Cotswolds, and these were surveyed in June by student volunteers from the Department of Countryside and Landscape.

The overall project was directed by the GA in partnership with the Ordnance Survey which provided free 1:10000 maps to all contributing institutions, and the Institute of Terrestrial Ecology. Five hundred 'key' rural squares matched squares whose changing land-use has been closely monitored by the ITE since 1978. A further 500 squares were selected which were predominantly urban (with 90% of the population). Northern Ireland was surveyed with an additional 29 squares. Each participating team had to provide for each square:

- (1) a map of current land-use using 18 categories of use
- (2) a spreadsheet of predominant land-uses calculated as percentages
- (3) a 'national issues' appraisal, commenting on, for example, recent housing, retail developments and setaside.
- (4) a general 'views' consensus, describing, for example, the 'character' of the square, interesting features, environmental issues and a 'vision' of what the square will be like in 20 years.

Full details of the project, its results and interpretation, are planned for April 1997 publication, but as an interim notification this set of Preliminary Results also offers some useful analyses, grouped under rural and urban landscapes, and views and visions.

The rural analysis by R Fuller and C Barr of the ITE describes how a computer package, *The Countryside Information System*, was used to calculate the total land cover area and percentage for each of the land classes. Grassland came out as the most dominant cover type (34%), followed by arable (23%), heath and bog (14%), woodland (12%), wetland (2%), and rocks, coast, horticulture and quarries (less than 1%). Built-up land covers 8% of the rural landscape. Further detail is offered by way of regional break-downs and broad environmental choropleth maps. The article concludes with a discussion of the sampling techniques adopted, the nature, value and limitations of field survey compared with remote-sensing.

The urban landscape results, discussed by P Kivell of Keele University, reveals that residential land was the largest category (50%), followed by land associated with transport (11%), open space (10%), public institutions (7%) and industry (4%). The regional pattern shows, for example, that the towns of the Midlands appear more

built-up, and in other areas land given over to commerce exceeds that in industrial use.

Responses on views and visions of the environment are presented by Rex Walford of Cambridge University, partly by selecting a number of quotations to give a flavour of the responses, and partly by attempting a qualitative analysis. The leading five issues for both urban and rural squares interestingly come out as identical in both content and priority, viz traffic volume (25%), pollution (17%), urban sprawl (15%), litter and rubbish (14%) and decay/dereliction (8%).

The question 'What changes, if any, would you like to see in your square?' generated a range of answers which might have particular interest to landscape architects. Among the desirable changes for urban squares are listed: increase in amount of open space, improvement of derelict land, improvement in the quality of open space; and for rural squares: planting or restoration of woodland, improvement in public access and increase in the amount of hedgerows.

I chose to review this publication for two reasons: firstly, to applaud the GA and other associated organisations for the planning and management of the survey – long overdue – and, secondly, to illustrate the kind of information which has so far been generated by the project. As stated earlier, a full analysis is forthcoming which will no doubt provide a valuable resource for researchers and practitioners in the land-based professions: geographers, planners, designers, consultants. With hindsight, I suppose my only regret is that I did not involve more students in the endeavour, particularly as I recall the enthusiasm and commitment of those few who did contribute and who, I am sure, got a lot from so doing.

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