

# LES CAHIERS

DE L'INSTITUT D'AMENAGEMENT  
ET D'URBANISME  
DE LA REGION D'ILE-DE-FRANCE



## LES PAYSAGES D'ILE-DE-FRANCE

*comprendre, agir, composer*





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**André Holleaux,**  
membre du conseil d'administration  
de l'Aurif, nous a quittés

Cet été a vu la disparition d'André Holleaux, décédé à l'âge de 76 ans. Conseiller d'Etat honoraire, Officier de la Légion d'honneur, ce haut fonctionnaire a défendu pendant plus d'un quart de siècle les valeurs de l'environnement et de l'écologie, avec conviction et détermination.

Il fut directeur de cabinet auprès de plusieurs ministres : Robert Buron aux Travaux publics, Edmond Michelet à la Justice, André Malraux aux Affaires culturelles. Ses fonctions successives l'ont également porté à la direction générale du Centre national du cinéma (1965-1969), à la présidence de FR3 (1982-1985) puis de la Commission consultative des radios locales privées. Il présidait depuis 1991 la Commission de contrôle des institutions de prévoyance et des mutuelles.

En 1970, au moment où «la qualité de la vie devient un programme», comme il aimait à le dire lui-même, il fonde l'«Union départementale des associations de défense de la nature de l'Essonne». Depuis cette date, il avait conservé une activité débordante parmi le monde associatif.

En 1989, à l'occasion de la révision du Schéma directeur régional d'Ile-de-France, il préside la commission environnement-espace rural.

Elu conseiller régional en 1992, il présidait depuis 1993 le Comité régional de l'environnement.

Il a marqué de sa présence les réunions du conseil d'administration de l'Aurif, dont il saluait régulièrement la qualité des travaux.

Son éthique unanimement reconnue, comme sa grande simplicité et sa clairvoyance, ont fait de lui un des avocats les plus fidèles de l'environnement en Ile-de-France.

Cette contribution à une politique régionale du paysage ne pouvait que lui être dédiée.

## The landscape, a regional stake

**T**he Ile-de-France has a very fine heritage of architecture and landscape. Some of its sites and monuments are world famous.

*Its many villages, churches, châteaux, forests and valleys, of local and regional interest, make it one of France's most beautiful regions. And lighting is also important, as landscapes change with the sky, the weather and the time of day.*

*But the threat to the landscapes is even greater in the Ile-de-France than anywhere else, because of the size of its population, the extent of its urbanisation and the importance of its infrastructure.*

*Whether it be deplored or appreciated, suffered or assisted, the evolution in the landscape of the Ile-de-France is likely to continue.*

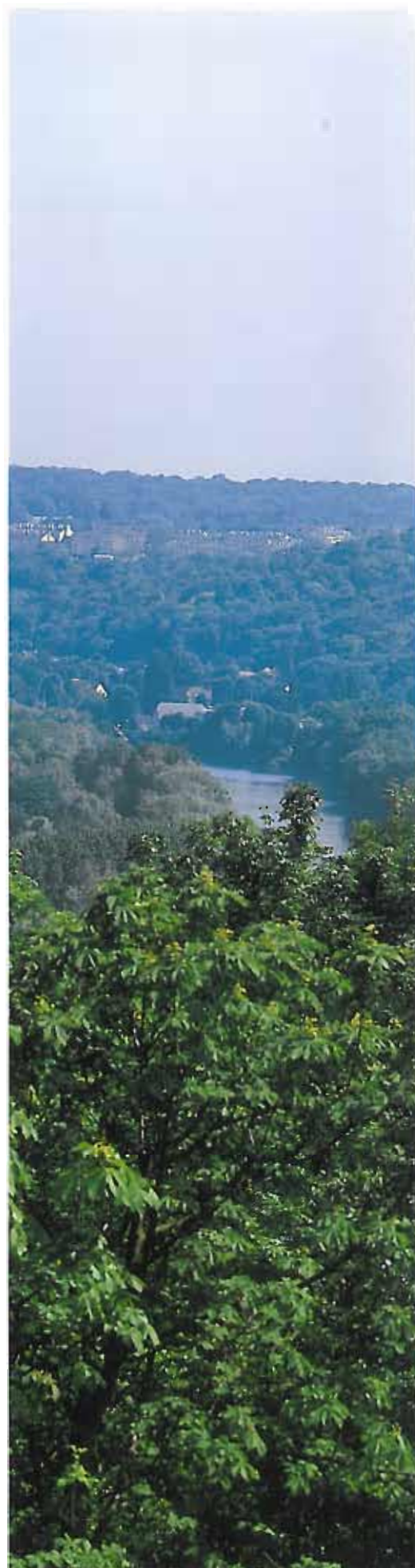
*If it is to reconcile tradition and innovation and take place without discord, simple statutory measures are no longer sufficient.*

*An overall project must be worked out, with coherency between one area and the next, one sector and the next.*

*The State and regional authorities must be the mainspring in the implementation of such a project. On the scale of the Ile-de-France, the Region is naturally the authority that is in a position to support such a project. But it must be everybody's concern, involving socio-economic forces, administrative bodies and inhabitants alike.*

*Providing an inventory of the various aspects of the regional landscapes, defining general and localised objectives, putting forward a variety of means, are all important elements in creating a strong regional landscape policy.*

*Above all, they bring out the fact that it is now absolutely necessary to go beyond approaches that are spatially, thematically and institutionally over-compartmentalised.*





# Landscape, landscapes...

The landscapes of the Ile-de-France are an integrant part of the French heritage. Not only have they been made famous by paintings and other portrayals, but they also provide a setting for the daily lives and activities of several million inhabitants and visitors. More than anywhere else perhaps, that setting, those landscapes, are changing. The causes ? Urban pressure from the capital region ; the dynamism of its population, firms and farming ; and the fact that this region stands at a crossroads and is itself a crossroads.

In issue number 106 of *Les Cahiers de l'IAURIF*, devoted mainly to the subject of landscape, the approach was to give thought to the subject of nature and the fact that it must be taken into account in the act of town and country planning and management, to the means that are to be brought into play in order to analyse it and step in at the tight moment. In issue number 113, *Petites notes pour un territoire*, we were reminded of the specificity of the regions's problems, related to its context and, in particular, to its ever-changing nature and the processes that come to bear on its evolution.

The landscape is also present, either visibly or just beneath the surface, in many articles dealing with projects, studies, procedures, approaches and so on.

The landscape is omnipresent, for each of us, in his own particular way and on his own scale, consciously or unconsciously, massively or in small touches, has some effect on it. Without realising it, we do to the landscape what Monsieur Jourdain did to prose.

The time has now come to bring together and present all the concrete experience that has been gained and all the more technical information that has been gathered on the subject of the landscape, with particular reference

to the Ile-de-France region. The aim of this study is to be useful and we would like it to be useful and we would like it to be used.

Useful as a means of understanding ; used by all those who have to take action to deal with some aspect of the landscape. Thus, in this issue of *Les cahiers*, three key headings are used : «Understanding», «Taking action» and «Designing».

The first two are easily and directly comprehensible and logical in an approach whose intention is, as we have stated, to be useful and to be used, but the meaning of the third is less immediately obvious. The reader will soon understand it, however, for the implications of its meaning are important in any approach to landscape.

Design involves, first of all, coming to terms with the landscape, the elements that go to make it up, the underlying structure that gives it its form, the networks that connect its various component parts, the changes it is undergoing.

Design also involves coming to terms with all the different actors -each with his own skills, his own tools- who have a role to play in the landscape.

Finally, «Designing» means working on and around a common project, whether it be concerned with a particular area or a theme, whether it corresponds to a demand or is attempting to solve a problem.

Although the information provided in this study is not exhaustive, it will at least have had the merit of existing, of representing a milestone at a time when the landscape, which is often seen as something that is set and rigid, is beginning to come to life.

# Understanding

Our aim in this first part is not only to describe the landscapes of the Ile-de-France but also to explain how they are perceived, how they are formed and transformed, and discover the stakes they represent.

Understanding is necessary if we are to take action. In order to determine the stakes involved we must be able to define the objectives of that action, then consider the means that are to be brought into play.

But providing food for understanding is also a form of action. This first part also aims, therefore, to help to provide those who shape the territory of the Ile-de-France with a shared landscape culture.

This work also prefigures what could become an atlas of the landscapes of the Ile-de-France, like those that already exist for certain departments (Yvelines, Savoie), before the preparation of landscape plans of the same entities<sup>(1)</sup>. The context here is similar : it is a question of providing the different contributors – and particularly the local authorities – with a reference framework enabling them to situate their action.

The way a society considers its landscapes, the demand for conservation, rehabilitation or creation of landscapes are always based on reference landscapes, on an ideal, which is influenced by individual and social history and by the way those landscapes have been represented.

Those representations and their influence, both current and foreseeable, have thus been analysed.

The second essential factor in understanding today's landscapes is their natural and human history.

Natural history explains the different types of relief, the positioning of water sources, important plant formations. Human history shows the logic in the organisation of the land by farming, communication networks, urbanisation.

The composition of landscapes is the result of that history. And the various features and elements that enter into that composition, the geometry that determines their organisation, gave the landscapes of the Ile-de-France their identity, before a certain number of changes took place which have tended to standardise them and make them less coherent.

The recent evolution of the landscapes in the Ile-de-France has broken with most of the changes so far observed, which were slow and related to the site. Indeed, every age believes itself exceptional, and it takes hindsight to judge whether or not it was so; but a landscape project cannot treat the legacy of the last few decades in the same way as that of previous centuries.

Finally, it seems essential to present and analyse the main policies that have already been implemented and also those in charge of them, their objectives and the means by which they hope to achieve their aims.

(1) Alain Mazas and Alain Freytet, *L'atlas des pays et paysages des Yvelines*, Versailles, CAUE des Yvelines, and Grenoble, Editions Courcoux, 1992. Hugues Lambert et al., *Atlas des paysages de Savoie*, Paris, Ministère de l'Équipement, 1997

# Landscapes: perception, dreams and experience



**O**ur apprehension of the beauty of a landscape is based on references that are deeply rooted in the collective subconscious. Those references are the result of our culture and today they, and our means of integrating them, seem to be changing. If we are to understand the landscapes of the Ile-de-France, we must also be aware of those references and the vectors that build up in us the image of a beautiful landscape.

## The landscape: objective and subjective reality

Landscape is one of those familiar terms that are so difficult to define. Dictionary definitions, for example, are generally quite poor, giving no account of the wealth of experience that landscapes represent for each one of us. The Concise Oxford gives: 'natural or imaginary scenery, as seen in a broad view'<sup>(1)</sup>, which tallies with the definition given in Larousse (inspired by Littré): 'étendue de pays qui présente une vue d'ensemble'. The French dictionary Robert gives: 'partie d'un pays que la nature présente à un observateur'. The landscape in these definitions is limited to the idea of a panoramic view, but the notion of landscape is more complex than that, resulting not from single glimpse but from a whole variety of perceptions of a particular site. The definition given by Robert is restrictive in that it apparently excludes landscapes that have been transformed by man, particularly urban landscapes. However, these definitions reflect the origin of the notion of landscape, which has only gradually taken on the meanings we associate with it today — urban landscape, landscape ecology, etc. — not forgetting figurative senses, as conveyed in the French expressions 'paysage associatif', 'paysage politique', 'paysage audiovisuel' (where English uses the word 'scene').

**Historically, landscape** (at least in Europe) **means a broad view of natural scenery.** And that is how painters see it. We may say that its appearance in painting dates from the beginning of the 15th century, when it was no longer viewed as through a window but began to take up the whole of the background. The word was coined about a hundred years later, when the landscape began to take up most of the picture (without being the main subject)<sup>(2)</sup>. It was in the 17th century that the 'historical' landscape — as a setting for scenes from antiquity, the Bible or myth — became a major genre in painting, with Nicolas Poussin and Claude Lorrain. In the 18th century, the term *paysage* was applied in France to the art of gardens. In France, the landscape did not become a genre in its own right, as the main subject of paintings, until the 19th century (more than two hundred years after the Netherlands), with Romanticism.

Originally an artistic preoccupation, landscape is undoubtedly a subjective notion. But there can be no representation without a subject, there is no subjectivity without a real object perceived by the artist. And **the landscape is both the object perceived and the way it is perceived.** Our modern minds, used as they are since Descartes to separating the subject from the object, find this indissociably objective and subjective character difficult to accept. To make it more easily understandable, Augustin Berque uses the metaphor of the climber's handhold: the latter really exists, on a tree or rock, but it only becomes a handhold if there is someone to grasp it<sup>(3)</sup>.

(1) The definitions given in the 20-volume Oxford English Dictionary are obviously much more complete.

(2) Dutch was the first language to use the word: the term *landskap* appeared towards the end of the 15th century. It gave rise in the following century to the English word *landscape* and the German *Landschaft*. The French *paysage* appeared in 1549 (A. Berque, *Les raisons du paysage*, Paris, Hazan, 1995, pp. 105 et seq.).

(3) Médiance, *De milieux en paysages*, Montpellier, Reclus, 1990, pp. 102-103.



## Representation and motif

Modern culture is not only Cartesian but also positivist and it belittles subjectivity whilst according greater value to an objective reality that is allegedly invariant. But the subjective dimension of a landscape cannot be reduced to something that is individual or arbitrary, any more than the objective dimension can be occulted. For if each individual has his own perception, we also find dominant characteristics in a given society at a given time.

Without our always being aware of the fact, collective perception of the landscape has been widely influenced by artists: those who represent the landscape (not only painters, with whom the notion originated, but also writers and film makers) and those who change it with the idea of making it more attractive and giving it a meaning (landscape architects, but also architects, town planners, designers, sculptors — all those who consciously play a part in creating the landscape). Alain Roger speaks of landscape as the 'artialisation' of a site, that is to say its transformation into a work of art, by development or representation<sup>(4)</sup>. These two modes of 'artialisation' not only influence the way we consider the landscape, but they also influence each other; not only do painters represent landscapes that have been developed, but landscape architects tend to make sites fit in with the portrayals of their time. The influence of painting on development dates from even before the reverse: the English landscape architects of the 18th century, such as Capability Brown, imitated the pictures painted by Claude Lorrain. And that influence still applies today: the development of a Regional Nature Park, such as that of the Gâtinais, aims to preserve the landscapes as they were painted by the painters of the Barbizon School.

This perception carries with it a certain number of images, frequently recurrent in artists' representations and public expectations, which may be referred to as landscape 'motifs'<sup>(5)</sup>: motifs related to the subject, such as trees reflected in water, a road lined with plane trees, a bridge over a river, a valley floor with its meadows and pollard willows, etc.; but also motifs related to the composition, such as the landscape in perspective, with the foreground framing the background and giving an impression of depth. **The way a particular society views landscapes always comprises a comparison with these artistic portrayals and their motifs:** the latter thus create references. Beyond the public, the decision-makers seek to make the real landscape fit in with these models.

Some of the representations that have had the most influence on the way we see the landscape in the Ile-de-France are here analysed. There are many media, including written texts and images. We were not able to deal with the vast field of literary representations, but we are well aware of what our view of Paris owes to Hugo or Balzac, our view of the industrial suburbs to Zola, that of the Beauce to Pé-

guy, to mention but a few. We have kept to visual media, which have a more immediate influence<sup>(6)</sup>. Almost 350 paintings were thus listed, dating from the mid-19th to the early 20th century. In the heart of this great period of landscape painting, Impressionism made the French landscape, and particularly that of the Ile-de-France, famous the world over. As for audiovisual representations, they now play a considerable role, not only through their power of suggestion but also because they reach all the different social categories. Nowadays, television is a more important vehicle than the cinema. But listing all the images produced by television was an even more difficult task than listing literary representations; therefore, it had to be left aside. In the field of cinema, almost 350 films were listed (sixty or so of which were studied in detail), containing over 600 shots of the landscape. Finally, we looked briefly at touristic representations of the landscape (postcards, illustrations, guide books), which are not so innovatory from the artistic point of view, but they reach a very wide public.

Artistic motifs are not found only in landscapes: portraits, nudes, still life, indoor scenes are genres that are just as important. And since Impressionism and its questioning of the classical genres, all sorts of intermediate genres have come into existence. It was not always easy, therefore, to say what was landscape. In the media we studied, all the indoor views, and all those in which individual items or figures were predominant, were eliminated, thus leaving only general views, even those excluding the skyline.

## Painting

Painters invented the landscape in Renaissance times, and in the 17th century the historical landscape represented in paintings influenced the art of landscape gardening. However, it was not until **the 19th century that the landscape became a genre in its own right in France** and painters began to take an interest in all types of landscape. Moreover, French painting of the mid-19th-early **20th century became famous all over the world and set the references for French landscape for a long time to come.**

The best-known movement of that period, and also the one that took the greatest interest in the landscape, was obviously Impressionism, with Monet, Manet, Pissarro, Sisley, Renoir... The painters who often kept company with the Impressionists, and with whom they have historical ties, al-

(4) Nus et paysages. Essai sur la fonction de l'art. A. Montaigne, Paris, 1978.

(5) A. Berque, 'Milieu et motivation paysagère', *L'Espace Géographique*, no 4, 1987, p 244. Alain Maxas, 'L'anticipation des paysages', in *Paysage, grand paysage*, Les Cahiers de l'IAURIF, no.106, pp. 26-28.

(6) To be more precise, we have restricted ourselves to paintings, films and, in the field of tourism, guide books and postcards. If we were to study the subject in greater depth, we should also look at television, photography (particularly Cartier-Bresson, Romis, Boubat, Lartigue and Doisneau, where Paris and its suburbs are concerned) and strip cartoons (including Jacobs and Tardi, whose works are often set in Paris and the Ile-de-France). For a comparison of literary and pictorial representations, see, for example, Yves Luginbuhl, *Paysages. Textes et représentations du siècle des Lumières à nos jours*, Lyons, La Manufacture, 1990.

though they explored other styles, also gave great importance to landscape: Cézanne, Gauguin, Van Gogh (and, to a lesser extent, Degas and Toulouse-Lautrec)... But Impressionism was not isolated: it was preceded by Romanticism (the first movement to represent the landscape for its own sake, rather than as the setting for some action or other), by Delacroix, Corot, Courbet, the Barbizon School (Rousseau, Millet...); it was accompanied by a whole host of lesser-known painters, who showed quite precisely the changes that took place in the landscape during the 19th century; it was followed by the Pointillists (Seurat, Signac), the Nabis (Vuillard, Bonnard...), the Fauves (Vlaminck, Van Dongen...), and many others, all of whom painted the landscape, giving interpretations that were more and more personal, but always sufficiently recognisable for the public to continue to be influenced in its way of looking at the real landscapes.

Many painters lived in Paris, the cultural, cosmopolitan capital. And it was, of course, the landscapes of the Ile-de-France, which became directly accessible with the advent of the railway, that they represented when they came to paint in the open air, thus breaking with the academic landscapes of Italian or imaginary inspiration. Thus, the painters of the Barbizon school immortalised the forest around Fontainebleau, the nearby countryside of Bière, and, above all, the parts in between — the heaths, flats, chaotic sandstone areas — many of which have now been reclaimed by the forest. As for the Impressionists and their successors, for whom, a priori, no motif was lacking in interest, they painted all the places people frequented at that time: the Paris of Baron Haussmann, the suburbs, the river banks (which were already shared between leisure activities and industry), country activities. Their fame helped to make those landscapes, which were then modern and commonplace, a part of our heritage.

## The cinema

The landscapes of the 'Far west' (prairie, desert, trails...), which feature prominently in American films, have become symbols of a national identity. **The landscape does not play such an important part in the French school**, possibly because the latter is marked by literature. Not only are there many film

adaptations of written works, but also **many 20th-century French writers tried their hand at the cinema, adapting their own works, writing scenarios, and even making films themselves** — e.g. Pagnol, Prévert and Duras. Even in the works of Jean Renoir, the son of one of the greatest French landscape painters, the picture is subordinate to the text. As the psychological situation is often so important, the French cinema uses close shots more than shots of the landscape; the settings are urban more often than rural, and indoor more often than outdoor.

But, even in medium shots, the sites or types of site are often identifiable, whether they are named or not, whether they are filmed on location or in the studio (as was usually the case until the 1950s). It matters little that the 'Hôtel du Nord' was reconstructed in the studio for the needs of Marcel Carné's film: the one that still stands on the banks of the Saint-Martin canal identifies with it perfectly. Most of these sites are in the Ile-de-France, as for painting: the centralisation of French culture made Paris the 'Cinecittà' or 'Hollywood' of France. Producers, directors and actors were in Paris. The main studios (Boulogne, Joinville) were built in the Paris suburbs. Fifty per cent of French films were made in the Ile-de-France, and Paris has been filmed more than all the other French cities put together. But while Provence is filmed for its own sake, Paris serves above all as a typical urban setting, the countryside of the Ile-de-France simply as typical countryside, its villages and castles as a setting for historical plots rather than as a heritage for today.

Apart from specific places, the French cinema has also popularised a certain number of motifs<sup>(7)</sup>. These were not picturesque motifs in the first place, but they have been brought into the limelight as the scenes of action or strong feeling. Thus, the realist films of the 1930s-1950s, with their working-class heroes, are set in the suburbs with their uneven cobblestones and peeling façades; that does not prevent them from bringing out the plastic beauty of those parts, with cobblestones gleaming in the rain, for example. The banks of the Marne were filmed because it was there that the ordinary people engaged in recreational activities (in preference to the banks of the Seine painted by the Impressionists, which had become more uppercrust). The station was associated with de-

(7) Including films made outside the Ile-de-France (not studied here), but which show some of the same motifs



parture from Paris and the emotion of leavetaking; it was more rarely associated with arrival and reunion.

Certain similarities may be seen between the motifs used by the Impressionists and those represented by the realists in the cinema fifty years later: everyday modern settings (see table page 16, 17, 18: Paris streetscenes, stations, river banks... The same archetypes were also used: the forest is that of Fontainebleau, the countryside that of Gâtinais or Vexin, the city Paris, the river the Seine or the Marne. But the film director sees them more from the inside than the painter; in the cinema the setting is merely at the service of the action played out by those who live there. From the end of the 1950s onwards, out of concern for realism, the suburb took over from the faubourg, the airport from the station; faubourg and station were no longer modern motifs; they were considered as quaint.

## Guide books and postcards

A region's public image depends to a great extent on more modest, but more widespread media, which often take up the motifs developed by the more 'noble' arts. **Postcards, guide books and other tourist information, advertisements** (for the region or for other products using the region as a setting) **magazines, are important vehicles for popularising the various motifs that are found in the landscape.**

The postcard is the most widespread tourist medium, so much so that it has approached every possible subject, but nevertheless with a predominance of the motifs that are most typical of the places represented: the heritage, of course (famous sites and monuments) but also everyday landscapes (streets, country scenes). The postcard has also popularised the aerial view.

We did not carry out an in-depth study of tourist media, but one particular example nevertheless seemed quite revealing: that of the views chosen by the Institut Géographique National (the organisation responsible for producing maps of France), to illustrate its topographical maps. Indeed, all those covering the Ile-de-France provide a sample of the most archetypal views of the region. Of 15 map covers illustrated by a photograph of the Ile-de-France (see page 15), 4 show a forest (1 an oak forest, 3 birch trees in a sandy heath — for Fontainebleau of course, but also for Rambouillet), 3 show a plain with cultivated fields and a distant skyline (2 of them with a tree-lined road), 2 show a cornfield and an old village church (even as an illustration of Marne-la-Vallée!), 5 show a castle estate (4 the castle and 1 just the park — that of Versailles); just 1 shows a landscape including both ancient and modern elements: the Forum des Halles, with St Eustache in the background<sup>(8)</sup>.

**Thus, many types of representation — texts, and pictures, still or animated, cultural or popular — come toge-**

**ther to highlight certain motifs, although the cinema is more urban-based than painting or the tourist media.** Fontainebleau appears not only in paintings of the Barbizon school, but also in many films; it has thus become the archetypal forest, also appearing on the covers of maps produced by the IGN. The tree-lined road is also a recurrent motif in all these media. And although the tourist media we have studied show little of Paris, the French capital is nevertheless the most popular tourist destination, not only in the Ile-de-France but in the whole of France. To be more precise, the Seine embankments in Paris (classified as world heritage by Unesco) are the most visited site in the country and they also figure prominently in painting and films.

But the influence of such representations does not work alone: attachment to landscapes that are in danger of being spoiled — particularly when they are associated with a whole slice of a person's or a society's life — also plays a very important part, and it would be a good idea to analyse this aspect.

## From modernism to nostalgia

Every period has had its conflicts between the ancients and the moderns—at least, ever since that notion has existed<sup>(9)</sup>. Each tendency has prevailed in turn. Where architecture is concerned and what we now call the living environment: after three centuries of unwavering modernism, the 19th century saw an awareness of values of the past, with Mérimée, Viollet-le-Duc, Sitte... The first half of the 20th century was marked by the birth of the 'modern' movement (Bauhaus, International Congresses of Modern Architecture, with Le Corbusier, Gropius, Sert, Mies van der Rohe, the Athens Charter, international styles, etc.), followed by its triumph in the 1950s-70s. **Thus the urban form of the large housing complex, free from the street, the plot and continuity in height and building line, was planned, thought out and recognised.**

In the past 20 years, there has been a reversal of the prevailing tendency. Granted, there were critics of the modern movement even when it was at its height, and it is still strong, even though it is no longer predominant; but it cannot be denied that there is growing demand today for the preservation and restoration of old forms: 'post-modern' architecture, a return to traditional urban forms (street lines, etc.), regional-style houses, recognition and preservation of the rural landscape (particularly in the Regional Nature Parks). The ecomovement, with an increasingly strong demand for na-

(8) One map at a scale of 1:250,000 (red series), 2 at 1:100,000 (green series, the other two maps in this series covering the Ile-de-France bear views of neighbouring regions), 12 at 1:25,000 (blue series). There is a certain over-representation of the forest: this may be explained by the association of the IGN with the ONF, aimed at hikers, for the maps covering woods, even when the latter do not represent the greater part of the area on the map.

(9) Cf. Philippe Madec, 'Monermité: Du temps de celui qui parle', *Techniques et Architecture*, no. 431, May 1997, pp. 90-92.

ture conservancy, proceeds partly from the same tendency.

It is not our task here to analyse and explain these changing tendencies; we are merely observers. **We must nevertheless point out the importance of the nostalgia factor, which leads people to idealise things that have gone or are in danger of disappearing.** Many landscape motifs take on a growing importance in the imagination and are increasingly in demand as they are endangered or disappear. It was thus that Sitte promoted the urban shapes inherited from the Middle Ages, which were disappearing with the great changes of the late 19th century. Our industrial heritage thus saw its image reversed, and traditional rural landscapes are now our idea of beautiful countryside.

**Our ideas on landscape thus seem to have been inherited from the recent past:** the landscape that is disappearing, the landscape we still remember. The 'traditional' rural landscape is that of last century, when the rural population — hence the manpower needed to look after nature — reached its maximum; it is not that of the Middle Ages, with grubbing, fallow and right of common. Older references may exist for much longer in the collective unconscious, in stories and literary representations, but they do not survive for long where demand is concerned.

This 'beautiful countryside' — well-organised, productive and also welcoming, with its fields, meadows, copses, rivers, farmland criss-crossed by hedges and trees, villages huddled around a church — is one of the most prominent images in the present demand for landscape. Many modern theorists on the subject (historians, sociologists, philosophers) consider that the beauty of the rural landscape was established by the eye of the urban elites<sup>10</sup>. For the farmer, the countryside is a productive environment. For 17th-century painters, for 18th-century landscape architects and their clients, it was a setting for the *pastorale*, as sung by Theocritus or Virgil, then by the novelists of the Renaissance (Sannazar and Cervantès in the 16th, d'Urfé in the seventeenth century...); the archetype of that *pastorale* was a mythical Golden Age in Arcadia, a Greek province once peopled by shepherds (the subject of a famous painting by Poussin).

These authors help us to understand our present attitude towards landscape, but this ex-

planation nevertheless seems inadequate. Firstly, the contribution of literary and pictorial representations to this nostalgic view is no longer really relevant and has not been so for over a century. The last 'pastoralist' school in art was that of Barbizon. Since Impressionism and its view of the modern world of its time, each new tendency is *avant-garde*, always ahead of the representations of its time. Each one creates new references, while the previous references take on a patrimonial value. Today, film directors are interested in the suburbs; before that, they concentrated on the residential districts. The photographers invited by the DATAR to present a picture of France in the 1980s dwell upon interchanges, shopping centres and industry. Impressionism and pre-war films still play an active part in giving the public a favourable image of residential districts and open-air cafés, but during our analysis of paintings and films for this study, we found hardly any recent representations idealising the countryside.

Another explanation for the appeal of the traditional countryside lies in the fact that most of the city-dwellers of today are the sons and grandsons of countryfolk. When the latter arrived in the city, did they not simply rally to the view invented by others, or did they not simply idealise their own original environment? Is not our modern, emotional view of the countryside above all an expression of a longing for our lost roots — those of the individual, idealising the memory of the holidays of his childhood, and those of a whole society, witnessing the end of the eight thousand years of an agricultural civilisation?

Nostalgia comes into play not only for things that already belong quite obviously to the past — the traditional rural landscape, our heritage in terms of industrial archaeology. It may already be seen at work in the large housing estates, when buildings are demolished by explosives, in the mixed feelings of those watching: those buildings which they once so disparaged nevertheless represent a whole slice of their lives, and memories, whether good or bad, cannot just be wiped out in a few seconds.

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<sup>10</sup> A. Berque, 'Une certaine conception de l'environnement', in *Atlas des paysages ruraux de France* (dir. P. Brunet), Paris, J.-P. de Monza, 1992, pp. 117-118. Les raisons du paysage, op. cit., pp. 110-116. Raphael Larrère, 'Paysans, marches, paysages' in the proceedings of the symposium on *Paysage et Agriculture* (Paris 27-28 March 1996), Paris, *Comptes rendus de l'Académie d'agriculture de France*, vol. 82, no. 4, 1996, p. 102. Pierre Donadieu, 'Le projet de paysage, un outil de négociation' in *Paysage, grand paysage*, op. cit., pp. 3-35. 'Pour une conservation inventive des paysages' in *Cinq propositions pour une théorie de paysage* (dir. A. Berque, Seysseil, Champ Vallon, 1994).



## Tomorrow's references

Pictorial and cinematographic references, the weight of nostalgia, concern above all the adult generations. It was important to make this analysis, for economic and political power lies in the hands of those generations, and landscape policies depend on their references. But what of young people, the under 30s? And is it possible to foresee from their landscape references what will be the dominant references 20 or 30 years from now?

The dominant references can certainly not (or no longer) be described as elitist. Impressionist painting has been popularised on a large scale by reproductions (calendars, advertisements, greetings cards, tourist brochures, etc.). Originally, films were only for those living in towns and cities, but television, whilst competing with the cinema, has brought all the classics to a wide audience. But however popular they may be, these references are no longer so influential among teenagers and young adults. Three factors, two of which are inseparable, combine to reduce their influence and bring out others: on the one hand, the gradual distancing from rural roots; on the other hand, increased mobility of persons and the wider circulation of images.

The distancing from rural roots tends to make the younger generations less sensitive to the corresponding landscape references. As for increased mobility and the wider circulation of images, so far they have been convergent rather than antagonistic. At the beginning of the century, postcards showed the places in France that had become accessible through the railway and which were to be discovered by much of the population thanks to the introduction of annual paid holidays. Today, just as the development of the telephone and Internet creates contacts between people who in turn create a need for meeting, the images from all over the world that are conveyed by high circulation media — television, glossy magazines, advertising posters... — increase the desire to visit exotic places; and the fact that travelling is now cheaper means that many people are able to afford such visits, at least once in their lifetimes.

As is the case with ideologies or religions, the world is becoming a vast 'supermarket specialising in landscapes', in which the traditional rural image is only one of many references. For media and travel create not only images and memories, but also references, i.e. models with which the real landscapes are compared, and which the real landscapes will be increasingly expected to resemble. Of course, on the Brie plateau, Disneyland is only a miniature reproduction of the landscapes of the American west. But it would indeed seem that exotic references contribute, together with a more general ecological awareness, towards making the ideal landscape shift from the cultivated to the wild. Surveys show that **for a large part of the population, particularly young people, nature on a large scale, untouched by human activity, is the model that fits**

**their idea of what landscape should be**<sup>(11)</sup>. This could result in a greater acceptance than at present of rural 'desertification': fallow land may not be appreciated any more than it is now, because it is a sign of abandonment, but the resulting forest will be appreciated more than the countryside.

Correlatively to this free choice of landscape references, there is a growing distance between those who produce the landscape and those who use it. Town-dwellers who were born in the country are no longer among those who produce the rural landscape, but they are still familiar to a certain extent with the processes by which that landscape is produced, the people who produce it and their way of life. The new urban generations have no understanding of how the rural landscape is produced, nor the great wild expanses that now inspire them.

However, we must not underestimate the remanence of those old motifs. Artistic forms may go on existing for a long time after the context that justified their appearance has disappeared (as the motifs of classical architecture stemmed from the wooden structure of the early Greek temples). It is highly likely that, for a long time to come, the rural reference will remain a factor of identity — of French identity, at any rate. Television shows faraway virgin spaces in programmes such as 'Ushuaia', but it also maintains the rural reference with series such as Le 'Château de Oliviers', which also attract large audiences. There is another reason why the new motifs do not wipe out the old ones: the nostalgia which causes people to be moved at the sight of traditional rural landscapes also comes into play where endangered wild expanses are concerned: it tends to unite all these references, rather than bring them into conflict.

Uncertainty as to the future, the demand for landscapes, the probability that traditional references live on beside the new ones, the tendency to associate references of different origins and ages, plead in favour of an attitude of what might be termed 'inventive conservation'<sup>(12)</sup> or 'coming to a compromise': continuing to create the new, but always from the old, adding new strata without wiping out those that went before.

(11) The demand for wild natural scenery and the influence of television are the thesis of Yves Luginbuhl — based on a survey carried out among 200 persons for the Ministry of the Environment — in 'L'agriculture contemporaine peut-elle être paysagiste?', proceedings of the symposium on Paysage et Agriculture, op. cit., pp. 117-118.

(12) An expression borrowed from Pierre Donadieu, op. cit.

# The history of the landscape of the Ile-de-France



**T**he second requisite, if we are to understand the landscapes, is knowledge of their geological and human history, enabling us to understand how they were formed and thus recognise their basement through the epidermis forming them. It also enables us to understand how they are organised, their shape, the nature of the materials composing the elements built by man, and the very nature of the plants that play such an important part in their existence.

## Natural history as the basis of the landscapes of the Paris basin

The landscapes of the Ile-de-France are the result of a long geological history, measured in millions of years. Within its present administrative boundaries, however, the Ile-de-France represents only a small part of a much vaster geological whole: the Paris basin. Indeed, it is situated at the heart of the largest sedimentary basin in Western Europe.

Very briefly, the geological history of the Ile-de-France and the Paris basin may be divided into two main stages:

- a long phase during which materials were accumulated,
- a period of intense erosion, during which the different shapes of the landscape as we know it today were carved out (plateaux and outliers, alluvial valleys and meanders).

### *A long, complex stage of sedimentation*

The first phase started at the beginning of the Mesozoic era, about 250 million years ago (Triassic), then with the deposit of the chalky strata of the Cretaceous period (minus 100 to minus 60 million years) which form the bedrock of the whole of the Paris Basin. During the Tertiary period a long, complex sedimentation stage (between minus 60 and minus 25 million years) continued, interrupted by temporary periods of emersion and erosion. During

that period, at regular intervals, the sea frequently advanced, flooding the land and leaving behind lagoons, pools, lakes etc. along the littoral as it retreated.

These movements, combined with particular climatic and geographical conditions, led to the deposition of a diversity of rocks. Each of these advances (or encroachments) corresponds to a phase of sedimentation marked by the accumulation of mineral particles mixed with organic debris. Some of the sediments were transformed into hard rocks (limestone, for example), while others retained their original soft consistency (e.g. sands and clays).

During the Tertiary period, there were five major cycles, one after the other, each characterised by clearly defined spatial extensions, particular conditions of formation (marine, lagoon and lake deposits) and materials deposited (sand, marl, clay, limestone), forming as many geological stages and sub-stages.

These cycles were accompanied by phases of extensive folding (anticlines, synclines and faults), oriented WNW-ESE, indirect consequences of the orogenesis of the Pyrenees.

That long phase of marine and lake sedimentation came to an end just over 25 million years ago. It led to the deposition, in the centre of the Ile-de-France and over a depth of more than 2,000 metres, of materials forming a complex and varied sedimentary structure.

### *A period of intense erosion*

This sedimentation phase was followed, from about 5 million years ago, by a period of intense erosion. The folding of the Alps had indirectly brought about a sudden rise in the level of the Paris Basin, and a tilting of the Tertiary layers (much more pronounced in the north-east than in the centre of the Basin) led to a phase of intense erosion, favoured by a hot, damp, tropical-type climate.

A powerful hydrographical network, centred around the Seine, became established, eroding,



clearing and taking out to sea considerable quantities of materials. The erosive action, favoured by a regular alternation of hard (limestone) and soft layers (sands or clays), resulted in the clearing of four large interlocking platforms, arranged like the successive steps in a gigantic spiral staircase.

These four structural platforms are among the main features of the landscape of the Ile-de-France: the Beauce, the Brie, the Plaine de France and the Vexin.

**The Beauce platform:** the highest, occupying the south-western quadrant of the Ile-de-France. This platform extends well beyond the region, sloping gently down towards the Loire valley. Its northern end (Hurepoix) has been extensively dissected by the many tributaries of the Seine.

**The Brie platform,** in the south-western quadrant, forms the second step in the staircase: dominated by the Beauce plateau (almost 70m higher) to the west, it includes many buttes of Fontainebleau sand. It is also characterised by low permeability due to the presence of Brie burr-stone and often thick deposits of argillaceous silt.

**The limestone platform of Saint-Ouen** (north-western quadrant), supporting the Plaine de France.

The rough limestone platform is the lowest; it supports the Vexin plateau.

There are still some isolated vestiges of these platforms, which have been worn down by headward erosion, in the forefront of the plateaux. Thus, to the north of Paris, there is a whole series of outliers marking the former promontory of the Beauce plateau. All these outliers (Hautil, Cormeilles, Montmorency, Aulnay...) lie or are aligned (Goële mountains) in a WNW-ESE orientation, following the folds that affected the region.

The Quaternary period (2 million years ago) marked the beginning of the great glaciations, resulting from a general cooling of the European climate. They continued until about 10 000 years before Christ.

The Ile-de-France then experienced a periglacial climate with alternating periods of freezes and thaws. During that time, the relief began to take on its definitive shape (dissymmetrical valleys, dry valleys, etc.) and superficial formations (scree, alluvial deposits, wind deposits on the plateaux), resulting from the erosion of the pre-existing rocks, were created.

The drop in the sea level, resulting from the different glaciations, speeded up the phenomena of erosion. The watercourses that initially flowed on the surfaces of the plateaux gradually cut deeper to form valleys (Seine, Marne, Loing, etc.). On their slopes, the succession of alluvial terraces, formed by deposits of alluvia (sand and gravel), shows the former position of the beds of the watercourses and the important stages in that gradual sinking.

As they moved downwards, the major watercourses described vast meanders (good examples are those of Moisson and Guernes in the Seine valley, Jablines and Luzancy in the Marne valley). Under the effect of erosion by the current, these meanders have one steep, concave bank, hollowed out of the substratum, while deposits of alluvial material build up in the convex lobe. Still under the influence of the periglacial climate, the valleys took on a characteristic dissymmetrical profile: the slopes facing south and west are steeper than the slopes on the other side. The former, which get more sunshine, were shaped by surface runoff (thaws more marked because of their aspect), while the northern and eastern slopes were shaped only by soil fluctuation.

### *The forming of the present soils*

During the cold periods at the end of the Quaternary, the winds deposited loess and loam on the then bare plateaux. In some parts those deposits are several metres deep.

For the past 10,000 years or so, the climate in the Paris Basin has been temperate. This has led to the development of a thick ground cover which, in protecting the soils from erosion, sets the lies of the land as we know it today.

The principal modes of land use (between woodland and farmland) that we find in the rural landscapes of the Ile-de-France originated long ago in the features of the soil and the geology. The slow weathering of the superficial layer of rocks under the combined effects of climatic conditions, water, living creatures, etc., has led to the development of soils whose physico-chemical characteristics are closely related to that of the substratum.

Thus, the soft, deep deposits of loam were transformed by pedogenesis, becoming, with the present temperate climate, a brown, more or less leached soil. As these soils were fertile and easily cleared, they were naturally used for

farming during the important phases of deforestation which took place in the Middle Ages.

The forests are 'residue' which managed to escape that agricultural colonisation; they have usually developed on soils that are of little agronomic value. Soils and sub-soils thus appear as essential factors in the localisation of wooded spaces, which fall into three main categories: woods established on sandy beds (these are the most common); hydromorphic woods, which are to be found on the clay plateaux of Brie and northern Beauce; and finally the woods that have grown up on permeable limestone plateaux, where farming was excluded by the very thin layer of loam.

## How human history has organised the landscapes of the Ile-de-France

Human activity is one of the driving forces behind the evolution of landscapes. That is obvious where townscapes and communication routes are concerned. But it is also true of so-called natural spaces, none of which — even the forests — is completely natural in our region: they are indeed cultivated spaces, in the original sense of the term.

### *The evolution of rural landscapes*

A region's rural landscapes and its farming economy are closely connected, as may be seen from the two most typical types of landscape: the open-field system, resulting from large-scale cereal growing, and the bocages, indicating the presence of smallholdings devoted to mixed farming and cattle-rearing. Generally speaking, agricultural activity depends on natural factors (slopes, nature of the soils, aspect, etc.), but also on factors to do with the economic context.

The history of the rural landscape in France depends on the time scale that is considered. If we go back to antiquity, we observe a period of intense land clearing during the Gallo-Roman period, followed by less extensive land clearing during the medieval period and relative stability from 1300 onwards. The last 150 years have been marked by a significant increase in woodland: the forest has made a veritable comeback<sup>(1)</sup>.

In the Ile-de-France, the 'traditional' agricultural landscape that is used for reference might correspond to a 19th- or early 20th-century view. This landscape, based essentially on natural factors (soil quality, slopes, etc.), would have the following structure:

- open plateaux, of the open field type (Beauce, Brie, Vexin, Plaine de France), marked by large-scale farming on fertile, loamy soils;
- valleys devoted to cattle-rearing, with hedges and meadows;
- hillsides used for specialised activities, such as arboriculture and viticulture (the Marne valley to the east of the re-

gion, the hillsides at Chambourcy);

- forests on the poorer soils (sandy soils at Fontainebleau).

To complete this general characterisation of the Ile-de-France, we must take into account the Paris's market gardening belt, distinctive area which is functional rather than natural.

The close relationship between these landscapes and their natural constituents explains why they have not changed for many centuries: the best lands have been cleared and cultivated according to their potential and the poorer areas have been kept as woodland. In the 20th century, however, that balance has been destroyed — particularly by the swift development of techniques that have tended to reduce, if not eliminate, natural constraints. As a result, the rural landscapes have been changed somewhat.

### *Housing born of the land*

The positioning and appearance of traditional rural and even urban housing are closely determined by the land, as are the old farming structures.

Villages grew up near watering places, often half-way up a slope, along the spring lines. The latter corresponds to the resurgence of the aquifer, impregnating permeable ground (Fontainebleau sands and Brie limestone, Lutetian<sup>(2)</sup> limestone and Cuise sands) and retained by an underlying impermeable layer (green clays or Sparnacian clays). They are also found on valley floors, near watering places, sometimes on the plateau, when the superficial impermeable layers make it possible to supply ponds and wells with water.

Most of the large farmhouses with enclosed yards are situated outside the villages, amidst their lands.

In localisation, aspect, form and materials, traditional housing has been made part of the landscape. In the course of time, the economy of its implementation and the know-how of the local journeymen, masons and carpenters, created models that have changed little over the years.

The close relationship that exists between the materials used to build that housing and the soil on which it is built, stems largely from the economy that governed its implementation: flat-tiled, double-sloped roof, wooden-framed dormer windows, solid brick chimney shaft on a plaster base, burr-stone or limestone walls 'smeared' with plaster.

These traditional materials were taken from the nearest seams of hard rock: Vexin limestone, Brie burr-stone, Fontainebleau sandstone. Until the beginning of the 20th century, Paris itself was built with Lutetian limestone quarried on the spot.

(1) M. Scotto, 'La progression des surfaces boisées entraîne l'apparition de déserts verts', *Le Monde*, 5 December 1996. Where the Ile-de-France is concerned, a comparison of the five main cartographical coverages between the 18th and the 20th century shows that many pastures, heaths, routes and other open spaces have been planted with trees (cf. *Les Cahiers de l'IAURIF*, no 118-119, forthcoming).

(2) Lutetia: Roman name of Paris



### *The gradual creation of the urban framework and the road network*

In the olden days towns and cities grew up at strategic points on the early communication routes: fords, bridges, confluences, passes, and so on. Pre-Roman roads have survived, e.g. Rue de Vaugirad in Paris. The network of Roman roads was less dense around Lutetia than around the towns that were to become Rheims, Soissons and Amiens; traces of Roman roads are still to be seen, however, e.g. the roads running north-south and east-west in Paris (Rues Saint-Jacques and Saint-Martin, Rues Saint-Honoré and Saint-Antoine) and the Julius Caesar Way, which travels in a straight line from Montmorency to Normandy.

From the Middle Ages onwards, the network grew denser, forming a star shape around Paris. In the 17th century, through the agency of Colbert, the modern network of king's highways (or royal roads) was developed (built 'as straight as is possible'), linking Paris to the other economic poles in the kingdom. Until quite recently this network was used as a support for that of the main roads ('routes nationales'). Even today it plays an important role in structuring the landscape of the Ile-de-France, particularly with the lines of trees that accompany it.

The increase in travel, the development of fast transport (railways, motorways), the desire to separate through traffic, the priority given to transverse links, have profoundly changed the network's appearance : greater complexity, its structure is less legible. The characteristics of the new roads, the appearance, from the 1960s onwards, of deviations and expressways implanted in the landscape without any respect for its layout, tend to destructure it, despite attempts at integration and 'landscaping'. Paradoxically, the straight roads built in the 18th century structured the landscape, probably because their role and hierarchy were clearly legible and because their long profiles followed the lie of the land, saving on embankments and excavations.

Paris is situated in the centre of the Paris Basin, where the four large plateaux come together, between the confluences of the Seine with its two main tributaries, at the point where the Seine valley changes direction. It thus enjoys a privileged situation, ideal for a capital city, enabling it to direct the spatial development of

the Ile-de-France around it, and increase in size itself, in successive waves. For a long time, its growth was continuous, gradual and concentric. Preserving only the forests, which were often royal hunting grounds (Boulogne, Vincennes, Meudon, Saint-Germain-Marly, Notre-Dame, Sénart,...), it ate up the farming lands: firstly, and above all, the valleys (Seine, Marne, Bièvre, Yvette, Orge, Yverres, Montmorency,...), then the plateaux, particularly with the new towns. It gradually swallowed up the areas of urbanisation that had structured the rural space, some traces of which are still to be seen in the urban fabric now (the faubourgs, the suburban centres, etc.).

This mode of evolution, resulting from a mode of housing production and a zoning policy, may be transposed, relatively speaking, to the small or medium-sized towns that form the urban framework of the rural part of the Ile-de-France: historic centre, faubourgs along the main connecting roads, outer development in the form of single family housing studded with groups of multifamily dwellings and industrial areas on the outskirts. The old centres of townships and villages have not changed very much — less, at any rate, than their surroundings, where the houses (isolated or in estates) have been grafted on more or less harmoniously. The large farms did not change very much either (apart from the addition of metal sheds) — that is, until quite recently, when the neglected state of the walls and, very often, the main body, has become more and more noticeable.

### *Regional landscapes at the city gates*

Paris's central position, at the point where almost all the great landscapes of the Ile-de-France come together, means that these are close to the city, in the form of smaller units which act as advance signs. These open outer spaces thus become extremely valuable, relating the city to the whole of the surrounding territory: Valois (forests of Ermenonville, Chantilly, Halatte) via the three forests of Val-d'Oise (Montmorency, L'Isle-d'Adam, Carnelle); Beauce via the Saclay plateau; Brie via Notre-Dame wood and its cultivated surroundings. That could not be the case with the valleys: serving as important communication routes, they were very soon almost continuously built up.

# The composition of the landscapes of the Ile-de-France



**T**he landscape may be read on several different scales. The topographical features of the sites (plateaux, valleys, hillsides), their urban or rural occupancy, the objects that mark them out, acting as landmarks, enable us to read important landscapes and at the same time recognise the entities that go to make them up as spatially identifiable areas and places.

The observer apprehends a space with an inner coherence provided by its relief and the nature that occupies its surface. More subtly, it is the weight of history that punctuates it with exceptional sites and also, and above all, weaves an underlying fabric, to which urbanisation and open spaces are then added. Understanding this fabric enables us to understand, too, how the landscape is organised and the inter-relationship that exists between the various elements that go to make it up.

## Relief, the bottom of a landscape

**The relief of the Ile-de-France is the same as that of the rest of the Paris Basin**, of which it occupies the central part, as we have seen. **The latter is characterised mainly by plateaux** — that is to say, a large elevated tract of comparatively flat or level land, dissected by the hydrographical network, flowing in distinct valleys (as opposed to the relief of the plain, where the water courses are on the same level, and hills or mountains, where the relief is irregular).

The geological structure consists, of four large interlocking platforms support:

— to the south and west, the Seine valley, the Beauce plateau, extended by Hurepoix and

Gâtinais (altitude 110m at Orléans, 150m at Etampes, 170m at Meudon);

- between the Seine and Marne valleys, the Brie plateau (80m at Sénart, over 200m on the hill of Champagne), extended to the west of the Seine by the Bière and the Évry and Orly plateaux;
- between the Seine and Oise valleys, the Vexin plateau (90-120m);
- between the Marne, Seine and Oise valleys, the Plaine de France, to which may be attached Goële and Multien (30m at Paris, 100m at the foot of the goële's mounts, 140m at Multien).

These plateaux are about 100m above the valleys that border or cut into them (often with gradients of over 20%):

- the Seine valley (altitude 60m in the Bas-sée, 20m at Mantes),
- those of the Marne and the Oise, its main tributaries (and also the Yonne, over a short distance),
- the small valleys of the Yerres, Loing, Essonne and Juine, Orge and Yvette, Bièvre, Mauldre, Epte, Ourcq, the Morins,...

The Plaine de France, gently sloping down to the Seine, slightly dominating the Marne, separated from the Oise by the wooded reliefs of Carnelle, L'Isle-Adam and Montmorency, and without any steep-sided valleys, justifies its name as a plain.

Sometimes strongly indented (north-east of Beauce, forming Hurepoix and Gâtinais), certain plateaux leave outliers, even on neighbouring plateaux; these are easily picked out by their altitude:

- Aulnay mounds and Romainville, extensions of the Brie plateau to the north of the



Marne valley, culminating at the same altitudes (130m); — Thoiry fold, Alluets plateau, Hautil, Carnelle, L'Isle-Adam and Montmorency forests, Goële's mounts, extensions separated from the Beauce plateau culminating at the same altitude (180m or more).

Locally, plateau fringes, cut into in various directions by valleys with more gentle slopes, form hill sectors: Orxois, Hurepoix between Limours and Dourdan, fringes of Vexin, to the south (Arthies) and to the north...

## Land use, textures, ambiances

**The great forms of land use** — often related to the relief — **are the second factor in determining the most visible variations in the landscape. If the relief is its basis, land use is its visible outer skin.** Land use and relief are closely related, the geometry of the former depending to a large extent on the configuration of the latter. The forms of land use are expressed on the surface by textures ('natural' or urban), by 'layers' which give the observer moving in the landscape an impression of openness or otherwise, and by ambiances (plant, mineral, etc.), which are one of the most directly apprehended features of the landscape.

The forest of the Ile-de-France is dominated by oak woods. On fresh or limestone soils, the pedunculata oak is accompanied by the hornbeam; on dry or sandy acid soils, we find the sessile-flowered oak, the chestnut, the Scots pine and the birch. The forest occupies two main types of localisation: the major part of the steep hillsides, where it consists of copses, and the large massifs traversed by rectilinear walks, where the high forest is more predominant.

The dominant form of cultivation on the plateaux is large-scale crop rotation (beet or maize followed by straw cereals or rape) in large open fields, with a few groves providing cover for game.

The landscapes in the small valleys are more compartmentalised, with ripisylves dominated by willow and alder, smaller plots, which, for the most part, were meadows in the first place and are more commonly poplar forests or fallow today.

The large valleys (Seine, Marne, Oise), with more open landscapes, are much more marked by modern signs of human activity: roads, railways, motorways, high-voltage power lines, quarries, large industrial sites, spontaneous outer development.

The central part of Greater Paris (Paris and the inner ring to the west) consists of continuous multifamily residential blocks with a height varying between basement+4 and base-

ment+7, the predominant type of which is the so-called 'Hausmann type'. Outside the historic centre of Paris and the communes composing this central part of the Ile-de-France, the city presents a certain 'mixedness' because of the presence of activities within the urban fabric.

All around, forming the major part of the agglomeration, the 'suburbs' develop continuously, around small centres inherited from the past, with a fabric consisting mainly of single family housing, interspersed with multifamily housing estates, the largest of which were built in the '50s and '60s, and industrial, commercial and tertiary settlements. The large concentrations of industrial settlements are to be found to the north and east of Paris.

The outer metropolitan areas (Meaux, Melun, Fontainebleau, Étampes, Rambouillet, Mantes, Pontoise, etc.) reproduce, on a smaller scale, the structure of the Paris metropolitan area: continuous housing in the centre, single family housing, industries and multifamily housing estates on the outskirts (including some of the largest housing complexes in the region).

The new towns, which were built in the late '60s as a means of containing the population growth in the central metropolitan area, form separate entities, with functional urban structures and a large number of infrastructures. Although they were built within a short space of time, their architectural forms are more heterogeneous than those of other urban areas (either the old centres or the areas of single family housing).

## The geometry that lies behind the organisation of land use

If we are to understand the landscape, we also need to understand the organisational principles that regulate its surfaces and the objects composing it, which are, as it were, woven on an underlying fabric.

### *A plot pattern that is continuous, perpendicular and lasting*

**Looking closely at a plot pattern**, the hedges, walls or roads bordering it, and the buildings, trees and other objects it bears, we note that **all these graphic representations on the ground are not arranged at random but are usually guided by the linear features of the landscape.**

Those linear features are often recognised as the 'lines of force' of the landscape. The structure they form stands out quite clearly, thanks to the technique of recording only the

outlines of the objects present and the prolongation of those lines, disregarding the volume. The resulting graphic representation is known in French as the *trame foncière* or *trame parcellaire*<sup>(1)</sup> — the 'land pattern' or 'plot pattern'. It illustrates the basic features of the landscape, thus enabling us to get a clear 'reading'. At the same time, it serves as a tool to represent landscape for development purposes and as an instrument for designing urban programmes.

The 'plot pattern' shows up all the objects on the ground that make up the landscape (roads, railways, earth works, cultivated land, planted areas, buildings etc.). It includes the road networks, since these help to determine the plot pattern.

**One of the essential features of this pattern is its continuity**, in plots, directions, scales. It is defined everywhere where there are plots, and it thus covers the whole of inhabited space, like paving<sup>(2)</sup>. From one plot or object to the next, the direction may change slightly, but the pattern is unbroken from one linear direction to another. Its continuity is not only spatial: it also lies in the overlapping of scales, from the broadest (the landscape entity, and even beyond) to the most localised (house, shed, hedge, orchard, etc.)

**The second very common feature of the plot pattern is its relative perpendicularity.** Cultivated plots, developed plots, buildings, crossroads etc. are very often rectangular (or at least their corners are rectangular, even if their sides are curved). Locally, several rectangular networks may be connected by triangular, convex, concave hexagonal or pentagonal mesh.

**Another feature of the plot pattern is its consistency.** Although the forms of land use vary in the course of time, the underlying directions remain the same (or at least, that was the case until quite recently), because successive implantations have to take account of those surrounding them, which are already part of the pattern.

### *Several types of plot pattern which form the basis of the organisation of the landscape*

Each major type of land use has its own logic, which gives rise to a specific pattern: agricultural pattern, urban pattern and road pattern, which are often, but not always, coherent.

**The oldest, most commonly found pattern is the one formed by agricultural plots**, edges, country roads. The rectangularity of the rural pattern is related to the fact that fields are cultivated in parallel furrows, which tends to make the plots rectangular.

In places where there is a marked relief, particularly in the valleys, the rectangular pattern is usually based on the lines of greatest slope and on the contour lines.

Older urbanisation follows the farming plots quite closely.

Indeed, building was traditionally situated on the edge of the plot. Farming plots are easily constructible because their rectangular shape is compatible with that of the buildings. Even if successive divisions have made them into a strip lying perpendicular to the road systems, they can still be used for terraced houses with back gardens. The early roads fit in with the farming pattern; however, when they pass through set points, they in turn orientate the pattern: thus, the network of roads radiating out around a city creates a radial-concentric pattern which sometimes fits in with the one determined by relief (as is the case with Meaux, in the middle of a loop in the Marne, or Melun) and is sometimes independent (Brie-Comte-Robert, where the plateau relief has little influence).

Most post-War and post-'70s urbanisation, whether it be individual or multifamily housing or industrial estates, has flouted the plot pattern: it either follows other logical systems, such as aspect, or else there is no apparent logic, although the road network sometimes follows that of already existing tracks.

**The classical road patterns, forming long straight lines**, are an expression of imperial (Roman period), royal or aristocratic (17th-18th centuries) power: Roman roads (Julius Caesar Way), forest paths (in all the large forests), castle prospects (Versailles, but also many others), king's highways (now the RN 116, 17, 2, 3, 34, 4, 19, 6, 7, 20, 10, 12, 13 and 14). Some of these linear directions sometimes include two or even three of those types (forest path, prospect, king's highway). The RN12 (a former king's highway) is in line with the prospect of Pontchartrain castle. Likewise, the almost continuous chain of classic lines that travels from the Grange wood to Crécy forest via Gros Bois, Notre-Dame wood and Armainvilliers forest, is a series of forest paths, king's highways (D471) and prospects.

These straight lines do not follow the same logic as the forest pattern: forest paths were made straight for the needs of the hunt; prospects and royal roads could not follow all the curves and windings of the land as they travelled through hilly cultivated areas.

When we look more closely, however, we notice that they often follow the principal linear directions of the pattern or the lines of the relief determining that pattern: rather than going against the already existing geometry, the straight lines (particularly the prospects) bring out the pattern whilst simplifying it. The pattern can thus adapt to those lines without being greatly changed.

The lines that appeared in the 19th century with the railways, then in the 20th century with the motorways, correspond to a need to get from one point to another as quickly as

(1) Many studies of land pattern (*trame foncière*) have been carried out at the IAUFRIF — under the direction of the town planner Gerald Hanning (1919-1980), and also since then Cf. G. Hanning et al., *La trame foncière comme structure organisatrice de la mise en forme du paysage*, Paris, IAUFRIF, 1976. The term *trame foncière*, which is used in these documents with the idea of 'a framework for projects', is not yet commonly used in geography. The term 'plot pattern' (*trame parcellaire*), which we use here, seems to be less easily misleading.

(2) The expression *'trame pavante'* is used in French.



possible. Some old railway lines still try to follow the relief and the land pattern, often meandering in order to follow the contour lines. When there is a steep slope, they often take it face-on, which makes it possible to build an engineering work in the best conditions (great difference in height, short length). In fact, they simplify the pattern by the use of curves, while the royal roads etc. simplify by travelling in straight lines. Recent lines (TGV) and motorways, however, do not take account of this pattern.

### *The radial-concentric pattern of the Paris Basin and the predominant WNW-ESE orientation*

Looking at the region as a whole, we notice that **the radial-concentric structure of the Ile-de-France** and, more generally speaking, of the Paris Basin, is not only that of the road and rail network around the capital : **it is first and foremost that of the relief and the hydrographic network**, which as we have seen, is an important feature of the Ile-de-France landscape. Only one other instance of such a regular basin shows up on the relief map of France : the Aquitain Basin, around Bordeaux. However, the latter forms only a semi-basin, and the geological map shows that is not so regularly concentric in structure as the Paris Basin.

The radial structure is to be seen above all in the hydrographic network. Paris is situated in one of the broadest basins of the Seine valley, and there is a particularly high number of confluences in the vicinity : Bièvre, Marne, Yerres, Orge. The one exception is the Oise valley, which is tangential rather than radial.

The concentric structure is provided by the chains of forests which form crescent-shapes around Paris. To the south, a large crescent of forest covers the south of the Yvelines, the centre of the Essonne and the south of the Seine-et-Marne ; it includes Rambouillet and Fontainebleau forests and also the wooded fringes of Hurepoix and Gâtinais and the forest of Villefermoy. To the north, following the Oise valley, another crescent stretches beyond the present Ile-de-France (whilst remaining within the historical region), with three groups of three forests : Montmorency, L'Isle-Adam and Carnelle ; Ermenonville, Chantilly and Halatte

; Retz, Compiègne and Laigue. In the central part of the region, two smaller forested nuclei have now been rejoined by the urban area. The one also forms a crescent to the south-west of Paris ; Saint-Germain, Marly, Fausses-Reposes, Meudon and Verrières. To the south-east, Sénart and Notre-Dame forests extend this inner ring, but continue into the forests of Brie, Ferrières, Armainvilliers and Crécy<sup>(3)</sup>.

This radial-concentric structure is superposed and another structure, which is not so immediately perceptible, but which conditions the land pattern through the relief : the WNW-ESE orientation of the folds and faults in the Paris Basin - and indirect consequence of the orogenesis of the Pyrenees. This orientation may be seen, in particular, from the sandstone ridges and the gorges of Fontainebleau ad Gâtinais forests, the Goële mountains, Thoiry ridge, Hollande ponds, Montmorency valley and Vexin (with the Julius Caesar way), Gally vale (axis of Versailles palace) ; and it is the general orientation of the central part of the Seine valley, hence of the historical axis of Paris.

### *Singular or remarkable landscape features*

**The landscape also presents a series of remarkable sites, lines and points** — remarkable in the original sense of the word: worthy of notice. Of course, these elements generally stand out because of their particular significance (from the aesthetic, historical etc. points of view), which gives them a heritage value. **These remarkable elements usually have a certain value as structuring elements in that**, by attracting attention, they help to organise the views into a hierarchy, breaking up the monotony or dispersal. Many also bring out the structure of the site by the way they fit in with it.

However, **certain elements stand out because of the particularly damaging effect they have on the landscape**. They may not be called remarkable, but they are certainly noticeable.

The singularity of an element depends to a large extent on its environment: a building (a

(3) The radial-concentric structure of the Ile-de-France is one of the subjects studied by Jacques Sgard in *Les grands paysages d'Ile-de-France*. Document d'appui aux démarches d'aménagement (Paris, IAURIF, 1996).

farm, for example) which acts as a landmark when it stands on its own in an open space or in a homogenous fabric that is different from itself, does not stand out amidst an urban context that is in the same style or heterogeneous.

These elements fall into three important categories (although the limits between those categories are not always very distinct):

- elements covering a small area (points),
- one-dimensional elements (lines),
- two-dimensional elements (sites) that are sufficiently limited (entirely visible from one vantage point) or homogeneous to stand out as singular elements.

The importance of these elements may be recognised on a local, regional, national or world level, depending on their intrinsic value, on the way they stand out from their surroundings, but also on their visibility (close to a major road or a much frequented panoramic viewpoint, for example) and their historical importance. Many of these elements, although recognised, are not yet protected, and many other elements deserve to be recognised.

## The landscape as a system

The landscape is not only a collection of separate elements, however remarkable. If the eye is caught only by separate elements, we do not have the impression of viewing a landscape. We may say that **the landscape forms a system, that is to say a whole, in which the relationship between the various elements counts at least as much as the elements themselves.**

These relationships are very varied. The fact of being on the same ground is one: even a heterogeneous urban fringe becomes an interesting landscape when seen from a distance, for in the panoramic view the substratum becomes more important, as it possesses greater coherence than the development it bears. It is particularly obvious that elements belong to the same substratum when the relief is uneven (the hillsides and valleys of the Ile-de-France), provided the scale of the development does not compete with that of the relief. When the ground is flat (as is the case in most of the Ile-de-France), the magnitude, expanse, view of the skyline enable the observer to 'read' the substratum that unites the objects set on it.

Relationships are also a feature of the living world. Ecology is the study of those relationships, between living things and their environment. The branch of ecology devoted to the study of spatial relationships is known as landscape ecology. Granted, the landscape is not merely a question of environment, since it incorporates our perception of the latter, with all its cultural factors. But the ecological quality of an environment — diversity, balance, the importance of interaction — is an essential factor in its quality as landscape. Continuity, in particular, plays an important role in the quality of ecology and the landscape. Indeed, the continuity of natural spaces makes it possible to create biological corridors, favouring the distribution of plant and animal species, hence their diversity. The continuity of undeveloped spaces structures the landscape, providing indicators and individualising urban entities. Continuity also provides walks, 'green stripes', for example.

'Co-visibility' is an important mode of landscape relationship and many regulations have tried to take account of it, not always successfully. Two elements are 'co-visible' when each is visible from the other, or when they can be seen from the same point. The radius of 500m around classified monuments was aimed at controlling the area of co-visibility with the monument, but the result was not always conclusive. This led to the elaboration of the ZP-PAUP.

The landscape relationship may be intentional, going beyond simple co-visibility: it is the overall composition that unites, for example, classical lines that are linked together, and the elements that are part of their prospects. The cultural relationships between the elements of a landscape may even concern unconnected elements: the fact of belonging to the same historical or symbolical whole, a common origin, representation by the same artistic school, association with the same activity — all these are modes of relationship, which, when recognised, make the elements concerned a part of the same landscape.

**The remarkable nature of the elements mentioned earlier is often strengthened by their proximity and their visual, historical and sometimes functional relationship:**

- a prospect emphasised by a line of trees,
- a building set on a height or at a crossroads



- (Fontainebleau obelisk, Meudon radio mast, etc.),
- a monument looking out over a broad vista (Mont-Valérien fort), sometimes highlighted by a terrace (Saint-Germain, Ecouen),
- a network of communication routes (A10, TGV Atlantique and electricity lines to the south of Palaiseau),
- a general view of a historical urban site with certain buildings (churches, castle, etc.) standing out,
- a general view of a castle and its grounds, its prospects, and sometimes a farm or two belonging to the estate,
- a site in a strong natural setting, highlighted by a monument or historical urban context (this is common: Meaux, lying in a loop of the Marne; Versailles in the line of axis of a small valley; Pontoise and Provins, situated on a promontory, etc.), or strongly marked by industrial activity (near Mantes, the artificial cliff at Guerville opposite the electric power station at Porcheville)...

### Local identity : from the 'pays' to the locality, from the city to the district

Unlike the geographical types, the main types of landscape are not to be found throughout the Ile-de-France: there are too many differences between Brie and Beauce, for example, for them to be put in the same category. **Each type of landscape is found in only one localisation and it forms an 'entity'.**

Each type corresponds much more to an area ('pays') with a strong identity resulting from historical and geographical specificities that are recognised as such and are carried in a name (Brie, Beauce, Vexin, Hurepoix...); those specificities give the inhabitants a feeling of belonging, a feeling of solidarity.

But that does not mean that there are clear-cut or rigid boundaries: human history has not always cut up the different areas as geology has done, but differently at different times. This results in areas with loose or shifting boundaries, important transitional spaces, or smaller entities in between. Thus, the boundaries of Hurepoix and Gâtinais have fluctuated in the course of history. Some areas extend well beyond the historical Ile-de-France: there is a French Vexin and a Norman Vexin, a French Brie and

a Brie Champenoise, a French Gâtinais and a Gâtinais Orléannais. And even the present-day Ile-de-France includes a large part of what was the Brie Champenoise.

These two essential and apparently contradictory features of the different areas ('pays') — identity and permeability — are in fact inseparable. A dozen or so principal 'pays' may be picked out in the Ile-de-France, on the plateaux or in the valleys.

The areas on the plateaux or plains are generally identified by a historical name: Vexin Français, 'Vieille France' (Plaine de France and Parisis), Goële and Multien, Hurepoix, Brie Française and Orxois, Yvelines (the historical area corresponding to the south of the department, Rambouillet forest and its surroundings), Gâtinais Français.

The 'pays' situated in the valleys are areas of transition, convergence and intermixing. They are therefore less clearly identified, but they nevertheless correspond to entities, at least where their landscape is concerned: Bassée, the Seine valley above Paris, the Marne valley, the Seine below Paris; the Paris agglomeration also forms an entity, defined by the extension of urbanisation, but also — before the development of the new towns on the plateaux — by the Seine valley between the confluence of the Essonne and that of the Oise.

Identity and permeability characterise these entities on every scale, from the 'pays' to the locality. They are also found in the urban environment, from the city to the district.

# Recent evolution in the landscapes of the Ile-de-France



**I**n this chapter we shall take a look at recent changes in the landscape. Landscapes have changed more quickly during this century than ever before, particularly in the agglomeration and on the periphery.

## General tendencies

Changes in the landscape are sometimes the result of determined action, but more often they are the result of spontaneous or planned action with other aims than that of improving the landscape or preserving our heritage. Those aims are usually economic, in the broadest sense of the word. French landscapes have changed more rapidly during this century than ever before, whether by the acceleration of old phenomena or the appearance of new tendencies. Furthermore, the years of the post-war period ('les trente glorieuses', as they are known in French) mark a break with the relationship to the site that characterised previous periods.

The plateaux with their large areas of farming and the state-owned forests have changed less than the bocages of Normandy and Brittany or the mountainous landscapes, but the agglomeration and its periphery have changed considerably.

Those changes are manifested in the following important phenomena, which are still active, even though they attained their greatest intensity in the '60s and '70s:

- extensive consumption of space,
- continuous extension of the communication routes and urbanisation, leading to correlative partitioning of natural spaces,
- industrialisation of the production processes,
- separation of functions and juxtaposition of territories,

- extension of territories that are in the process of transformation: on the fringes of the agglomeration, in crisis sectors, beyond the rural and forest belt...
- a certain standardisation of the area, related to a loss of local identity through urbanisation, mobility, similar ways of life (from one region to the next, between city-dwellers and country-dwellers).

**The extensive consumption of space may be seen in the increasing amount of land taken up by urbanisation** (housing, secondary and tertiary activities, infrastructures), often at the expense of agricultural land. It has increased at an even faster rate than the population, which was itself increasing exponentially.

Thus, between 1900 and 1990, in the inner ring, the population increased almost two and a half times, while the surface area that was urbanised increased almost fourfold. The surface area that was urbanised represented 50 square metres per inhabitant in 1990 and 85 square metres in 1900 : an increase of almost 60 %<sup>(1)</sup>. The increase is probably even higher for the urban region as a whole, including the outer ring. The continuous extension of communication routes and urbanisation leads to the partitioning of the natural spaces, for most areas of urban development are right next to areas that are already urbanised. Where this is not the case, the intermediary space tends to get filled in, as, for example, south of Roissy. As for the communication routes, they are continuous by nature. All these urban-type continuities have

(1) Sources : INSEE, General population censuses for the departments within their present boundaries ; IAURIF, calculation of urbanised surface areas using the 1990 MOS (land-use mode) database and digitisation of the Army Geographical Service map, published in 1906 and based on work carried out in 1901 (Cf. Les Cahiers de l'IAURIF, n° 118-199, forthcoming). As this work was not carried out over the whole of the Ile-de-France, the figures given here are for the inner ring only (Paris and the three border provinces). The populations were 3,7 million in 1900 and 6,14 million in 1990, and urbanised areas represented 19 000 hectares in 1901, and 53 000 hectares in 1990.



broken the agricultural and wooded spaces up into compartments that are smaller and smaller and also more and more isolated: indeed, whereas a faubourg, a classical road or a railway with viaducts and tunnels maintained a certain permeability, an openness, that is not the case with broad development, a motorway or a TGV line, which are fenced off and realised entirely by means of embankments and excavations.

The industrialisation of the production processes means that the manufacturing of materials, their implementation in building and development, the models guiding the latter, and the resulting forms, are no longer related to the site. This industrial production permits a very wide choice of models on the same site and the multiplication of the same model on many different sites. This phenomenon permits the creation of new forms, which will be our legacy to the future. But it also results in loss of the relationship to the site and loss of homogeneity, which was what gave older development its harmony. And that heterogeneity on a local level becomes commonplace on a regional or larger level — another aspect of the same loss of identity.

**The separation of functions is one of the most serious tendencies.** Each area now tends to be developed for a single function: housing, offices, industries, commerce, infrastructures by category. Mixed functions and complex sites are thus tending to disappear. Correlatively, the transitions between different areas are not treated in a specific manner: they become simple juxtapositions. These juxtapositions are also to be found within an area with the same land use: building discontinuity is one of the most characteristic of modern urban practices, with buildings that are independent objects rather than being parts of a whole.

**This speeding-up of changes results in an extension of recent territories that have not yet been fully formed** — large estates, new towns, etc. — and also areas that have been abandoned while they wait for new uses: abandoned farming lands, industrial wasteland, disused quarries, etc.

Finally, **standardisation** through urbanisation, mobility, similar ways of life (from one region to the next, between city-dwellers and country-dwellers) **tends to wipe out identities.**

## Rural landscapes : intensification and neglect

In the past fifty years or so (since the second world war), agriculture has experienced great changes, due to the evolution of farming techniques, replotting and the internationalisation of exchanges. The agricultural policy came under strong economic pressure which led to changes in farming structures and modes of cultivation, more intensive farming and considerable gains in productivity. All these factors had major consequences on the agricultural landscape.

Changes in production techniques have meant that natural constraints are no longer limiting factors:

- drainage has solved certain problems of hydromorphy; the drainage of water meadows, now used for cultivation, has greatly changed the landscape in certain valleys;
- sloping land is more easily cultivated thanks to modern machinery;
- irrigation makes it possible to extend the area of certain productions, thus reducing regional specificity;
- land consolidation has modified farming structures and has tended to simplify the landscape (less diversity, which was related in particular to small plots; loss of hedges, copses, banks, etc.);
- the development of fertilisers and plant-care products has led to increased yields, even on the poorest soils.

This has resulted in a general standardisation of the landscapes, with large-scale farming. The evolution is different from one geographical area to another, however.

On the agricultural plateaux, the change in the open-field landscape, marked by the production of beet and cereals, is probably less marked than in other parts with a bocage landscape. The changes in agricultural structures has not fundamentally changed such large landscapes. The evolution is noticeable at a closer scale, in the texture, colour (development of rape, decline in the number of wild flowers, then a return to favour of the practice of fallowing land...), ambience (less diversity because of larger plots, disappearance with drainage of the wet or boggy patches in the fields, etc.).

On the hillsides, large-scale farming has spread to the detriment of more specialised farming (such as orchards; vines disappeared at the end of the 19th century with the phylloxera crisis). In certain areas, particularly where the slope was too steep or the property too divide up, the orchards, which were present on small plots as a complement to some other activity, have simply been abandoned and have gone back to woodland (Marne valley).

In the valleys, we encounter several situations:

- the valleys used for animal rearing have changed a great deal, the meadows being abandoned almost everywhere;
- poplar forests have developed, taking the place of the meadows. (Poplar forests were present in the 19th century in certain valleys, such as that of the Ourcq; they have overrun many others — e.g. the Viosne valley — this century.);
- in areas of market gardening and farming in small plots, the abandoning of this type of cultivation has led to certain forms of invasion by urbanisation;
- certain valleys have become standardised with the development of large-scale farming right up the river's edge (Yerres valley, for example).

Economic pressure and the different agricultural policies have led to a decrease in the number of farms devoted to

animal rearing, particularly in the damp valleys. In these environments, where the quality of the soil is poor, the lands that no longer served as pasture have not always found other forms of management. The result is that these lands lie uncultivated and gradually turn to woodland, which closes off the landscape. That is the case, for example, in the valleys of the Haute Vallée de la Chevreuse Regional Nature Park.

In France, wooded areas have increased from 11.3 to over 15 million hectares in forty years. This phenomenon reached the Ile-de-France more recently<sup>(2)</sup>. The forest has gained ground in certain valleys and on the edge of certain massifs.

In rural spaces, landscape is a dynamic process, which changes according to the intrinsic natural quality of the area and the modes of land management. Farmers are at the heart of this process but they do not always control all the elements. Economic constraints, agricultural policies and development policies have a great influence on these modes of management. The rural landscape may also see itself changed by other activities: urban development, the building of infrastructures. The rural spaces of the Ile-de-France are particularly affected by this type of development.

## Outer development and changes in the urbanised landscape

In the past few decades, urban and suburban landscapes have changed even more than rural spaces. The city has expanded, often considerably, in all directions, at the expense of the countryside. And inside the city, many urban fabrics have been profoundly changed.

Where development is concerned, the post-war period marked a break with the previous type of outer development, mainly 'finger' development along the valleys and communication routes. This linear development continued, but the large housing estates, then the new towns, were built first and foremost on the plateaux, where the flatness and land unity favoured the large operations that were scheduled.

In and between the spaces that were already urbanised, the transformation was more or less profound, and different according to the fabric. The least affected were the urban complexes

that had been there for a century: centres consisting of continuous high blocks (Haussmann districts of Paris, Neuilly, some parts of Versailles and Boulogne, etc.), but also large areas of single family housing. The older centres, many of which were dilapidated in the '50s, experienced very different fates: some were razed to the ground (Saint-Denis, Chelles, Choisy-le-Roi), while others were rehabilitated, thanks in particular to the Loi Malraux of 1962 (the Marais district of Paris, but also Provins, Corbeil, Sceaux, etc.).

The greatest changes, however, took place — and are still taking place — in the spaces 'in between', on the edges or enclosed by sectors that have already been developed, former agricultural or residential lands that have already been influenced by the previous waves of development that surround them. The development of these areas has taken place in several stages. Until the war, they were relatively homogeneous in appearance, and were still marked by the agricultural pattern, despite the beginning of densification and changes in use. The first stage was urban erosion ('mitage') and diversification of land use; this gave rise to a heterogeneous fabric composed of single family housing, a few blocks along the major roads, buildings for industry, open-air storage, wasteland, vestiges of farmland in the form of uncultivated waste, slums (until the 1960s). The second stage was a densification which upset the building to the point of leaving no indication of its original state. The last stage, with heavy consequences, was the invasion of public space by the motor car, which led to the widening of streets, the transformation of the roads into expressways, the felling of trees and finally the wiping out of all traces of its former state<sup>(3)</sup>.

This change did not take place at the same rate everywhere, nor from the same starting point; this created a juxtaposition of territories that were at different stages. These stages do not have the same intensity everywhere: in the inner ring, it is building that has most changed the urban landscape; further out, and particularly at city entrances, the first stage (formation of a heterogeneous urban fabric) has been combined with the last (widening of the roads)

(2) For France, cf. M. Scotto, 'La progression des surfaces boisées entraîne l'apparition de déserts verts', *Le Monde*, 5 December 1996.

(3) These stages are described quite strikingly by Alain Blondel and Laurent Sully-Jaulmes in a work entitled *Un siècle passé*, Paris, Editions Carré, 1994. It shows the changes in 39 suburban sites, from early twentieth-century post-cards to views of the same sites taken in 1970 and 1990. These three dates correspond to the initial (homogeneous) state and the two other stages described above (transformation by building, then by roads).



without the building necessarily becoming more dense. The most striking result of all these changes is the development of the suburbs. The suburbs originally formed just a fringe or a linear area of *faubourgs* around the cities. Now they take up more space than the city centres.

## Recent changes that are often ill accepted

All these spontaneous changes in the landscape, like those of previous centuries, are merely indirect consequences of processes that have other — particularly economic — aims. But while the landscapes that slowly evolved from the activities of the past are much appreciated today, the results of modern activities are generally considered as damaging. Even intentional changes — for example, in architecture — are debatable<sup>(4)</sup>.

Many instances of damage to the landscape are referred to as 'points noirs' (black spots). The expression underlines the fact that a whole site may be spoiled by an isolated element, exerting a negative influence which goes well beyond its own coverage and leading to further damage round about. But the situations are often more complex than that; above all, they are often gradual. The expression 'situation critique' ('critical situation') is now increasingly used, particularly in the actions of the Ile-de-France Regional Council, the word 'situation' indicating both the place and the mechanism of change<sup>(5)</sup>.

The places where such changes have led to the most critical situations fall into several categories, according to the preponderance of a particular process: discontinuity, neglect, breaks in scale, destructured sites, alienation of territories or geographical elements, damage to exceptional sites.

### Neglected sites

The neglecting of sites that were traditionally looked after is particularly striking when elements of a patrimonial value or whole landscapes are involved. Many buildings belonging to our heritage have been left to decay. Public buildings (churches, administrative buildings, schools, etc.) are generally well looked after, but many old dwellings — from small village houses to castles, not forgetting the many middle-class residences and almost half the large farmhouses — are destroyed either slowly by neglect or quickly by demolition. Apart from a few key buildings, the industrial heritage is even less well recognised.

Neglected landscapes are to be found both in the rural environment (uncultivated waste, disused quarries) and in the city (industrial wasteland), and the situation is even worse where the two meet. Uncultivated waste is a common subject of conversation today; it is not so extensive in the Ile-de-France — where there is a predominance of plateaux devoted to the cultivation of cereals — as in mountainous

regions, but it is nevertheless developing in the valleys. The disused quarries, too, are to be found mainly in the valleys, where they leave steep-sided depressions, often filled with water. Although the quarries and uncultivated lands could in the long run form new landscapes, their present state is ill accepted. In both cases, the return to a wild state of land where farming originally created a harmonious relationship between man and nature is as ill accepted as the excessive artificialisation of other parts. The same impression is given by industrial wasteland, of which there are many instances in certain parts of Paris's inner ring (though fewer than in the North of France or in Lorraine). The decline of all these abandoned spaces is often accelerated by their use as unauthorised rubbish tips.

### Urban erosion, the enemy of the '70s, is still alive

A small number of elements, of modest dimensions compared to those of the site, may be sufficient to spoil the latter within a large radius. This is what we in France call 'mitage' ('urban erosion'), a term that was used first of all to refer to the discontinuity created by building scattered in the natural environment — by analogy with moth-holes (a 'mite' is a clothes moth) in a fabric. Relatively speaking, the Ile-de-France was spared the problems of scattered housing development, compared with other regions of France: building outside agglomerations was in the form of housing estates rather than isolated houses, and that limited the number of sites affected.

But, more generally, the proliferation of isolated elements (other than buildings) creates a problem similar to that of 'mitage', and in that case the Ile-de-France is very much affected: in the suburban environment with electricity pylons, activities that do not require building permits, bill posting (particularly at the entrances to towns and cities); in the urban environment with a cluttering of public space by street furniture that is unnecessary, ill-assorted and implanted by each licence holder without any overall plan whatsoever.

### Zoning impoverishes and breaks up the landscape

Specialisation — industrial areas, residential areas, etc. — leads to an impoverishment of the landscape. Moreover, the juxtaposition of different specialised areas takes place haphazardly and without any transition. In the past, villages, towns and cities consisted of a series of spaces that were regularly connected together from the centre to the outskirts: gardens, orchards, then copses between the dense manmade nucleus and the fields. In the case of urban development of the past fifty years, density decreases more or less between the centre and the outskirts, but there are many cases of 'te-

(4) See above. *Landscapes: perception, dreams and experience*

(5) The notion of 'critical situations' and the following typology are based on the study carried out by Michel Desvigne, landscape architect for the Region and for IAURIF: *Paysages d'Ile-de-France Les situations critiques*, 1996.

lescoping' between developments for different uses and on different scales — large housing complexes or industrial buildings next to single family housing, estates containing hundreds of houses right up against a village... And the change takes place between one side of a street and the other, without any intermediate space, thus creating discontinuity and sudden changes of scale.

### *Town and city entrances: a showcase that has lost its lustre*

Some sites belong, very pronouncedly, to several of the categories we have described — in particular, urban erosion ('mitage') and generalised discontinuity. Town and city entrances are the most common and the most representative cases, so much so that the term now conjures up images of a mess of commercial sheds and warehouses and advertisements along a main road. The various problems affecting town and city entrances are: the proliferation of signs, discontinuity with neighbouring fabrics, the lack of urban structure, heterogeneity and banality.

The proliferation of signs — a form of urban erosion ('mitage') — makes the whole area illegible, and in the end goes against their objective. The discontinuity lies between the industrial or commercial areas and the spaces adjoining them, for they resemble neither the urban structures nor the rural spaces; above all, there is no connection and no transition (either clear or progressive) between them and those spaces. There is also discontinuity between the buildings, between the plots — independent entities which do not form a whole.

The lack of urban structure goes hand in hand with the lack of public space that is usually provided by that structure: public space is in fact limited to the road, which is not separated from service and private parking areas, so that this succession forms the apparent public space. The heterogeneity of the implantations (no alignment), shapes, sizes, materials, — whether for the buildings, signs, street furniture or services — goes hand in hand with banality: all the forms and styles that are found in each of these areas are the same.

### *Changes that blur our reading of the geography*

Plateaux, hillsides, valleys, river banks and so on are important elements which structure the landscape. Their traditional individualisation by specific land allocation helps to make the landscape readable: hillsides with orchards or woodland, valley floors with meadows, banks planted with alder trees and willows... If the ground is not used for any specific purpose, the preservation of open spaces (cultivated land) makes sure the relief and the structuring elements are readable.

The invasion of the valley floors by uncultivated waste, afforestation, poplar groves or urbanisation limits the overall views and also our understanding of the structure of the valleys. But these uses may still leave a certain transparency — as is the case with the poplar groves in the Ourcq valley — or respect the scale of the relief. Thus, the constant height of buildings in Paris maintains the variations in relief by moving them 20 to 25 metres higher.

The most serious damage is that done by urbanisation or an infrastructure that are not in keeping with the scale and bear no relation to the site. This situation is common in the suburbs, where it succeeds in masking the geography of the site: high-rise blocks in front of a hillside (this is very common in the Seine valley upstream and downstream from Paris), shopping centres taking up the whole width of a small valley, motorway interchanges wiping out the relief, river banks treated as if they were just ordinary banks, without any specificity, and so on. Non-respect of the plot pattern also contributes strongly to the loss of geographical bearings. The large multifamily housing estates, built between the '50s and the '70s, fit in neither with the scale of their site nor with the directions of the plot pattern (they are usually oriented N-S or E-W regardless of what the latter may be). The motorways, diversions and railway lines, which cut through the plot pattern at an angle, create no links but create points that are abandoned.

Other factors to do with urbanisation disturb the scale of a site. High-voltage power lines not only contribute to urban erosion ('mitage') but they also have a crushing effect: a wood 25 metres high or a hillside 50 metres high count for very little with 60-metre pylons passing overhead.

More modest geographical elements are not only masked, but damaged or destroyed: hillsides are disembowelled by motorway excavations, valleys are filled with earth from excavations, hedges and banks are levelled, rivers are recalibrated, quarries cut into alluvial terraces...

The change in the landscape goes further with the vast plots taken up by transport (high-speed railway lines, motorways, airports, port installations, etc.), industry, and quarrying (aggregates, limestone for cement, gypsum, etc.). In this case it affects not just elements of the landscape, but whole tracts of land. These plots are not only profoundly changed (as they may be by urbanisation), but they are (or seem to be) abstracted from the rest of the territory, by their size, their physical and/or visual inaccessibility (fences, differences in level, etc.), the lack of transition between them and their surroundings, and the fact that they bear no relationship to their environment. They are cut off from the neighbouring territories and, particularly when they are linear, they also separate those territories one from another. The breach may be as sudden temporally as it is spatially: the implantation of such sites may change a landscape completely within the space of just a few months, and the effects are often to be felt for a very long time to come.



However, seen from the inside, these plots present a modern and possibly very strong landscape. And their exterior impact may vary in extent and duration : the open, flat character of a site is not greatly changed by an airport or an alluvial quarry. The latter, which will remain in use for an average of only 5-20 years, may be screened by trees. However, a cliff-face quarry (gypsum, limestone, etc.), will be worked for 60-80 years and may change, or even wipe out, a whole hillside ; and earth works for a motorway perturb the relief for an indefinite period.

Finally, changes that would go almost unnoticed in ordinary sites, have a strong impact on sites that are of great value (panoramic vantage points, historic sites, etc.). The damage caused to the very gentle relief of the Plaine de France by Plessis-Gassot rubbish tip is aggravated by its situation in the middle of the panorama of Écouen castle. The controversy over the passing of the motorway A14 under Saint-Germain terrace shows up a similar problem.

### *Reversible damage, permanent damage*

We have set out the main types of damage to the landscape approximately in decreasing order of reversibility. Neglect and urban erosion ('mitage') are reversible, so long as they have not reached scales that are beyond control. Disused quarries and industrial wasteland can be brought under control relatively easily. Urban erosion by housing becomes more unobtrusive with time, as vegetation grows in the gardens. The removal of billboards costs little and simply depends on the will of politicians. Thanks to agreements between Electricité de France (EDF) and the State or Region, electricity cables are more and more frequently buried. Damage to exceptional sites caused by urban erosion or neglect is all the more reversible in that general attachment to those sites justifies the use of important means (as at Pointe du Raz).

Even considerable changes to the site may be transitory, leading to a new and well-balanced landscape : old alluvial quarries form lakes that are generally of great ecological and landscape value, and the cliffs left from gypsum and limestone quarrying may be redeveloped like of Buttes-Chaumont in the nineteenth century.

When the damage has gone beyond a certain point and when there are many factors invol-

ved, the cost of theoretically possible solutions is prohibitive. It is not possible to reclaim thousands of hectares of uncultivated waste, even in the Ile-de-France. As for the electricity cables that are to be buried (up to 90kV), financing has so far been found only for a small fraction of the line. And although there is great public awareness of the problems to do with the entrances to our towns and cities, short-term solutions have not yet been found because there are so many different elements and parties involved.

As for the consequences of large-scale urban erosion, zoning or the discrepancy that exists between geography and land use, they seem to be of a different nature. If they serve as a lesson for improving the integration of new facilities, they themselves are considered irreversible. Indeed, remedying them calls for major works at great cost. Such works are nevertheless carried out in certain cases: the covering of existing motorways (A1 at Saint-Denis), restoration of calibrated rivers (in Germany)... But also lighter operations with other objectives, such as those aiming to make certain sites more 'traversable', may change their image if not their nature: footbridges over motorways, or even a project such as the future eastern entrance to Roissy; likewise, free public access to harbour installations (at least outside operating hours) is an important factor in their acceptance, and therefore in their recognition as landscape. The development of the harbour at Saint-Nazaire, enabling it to once again become a part of the city, could serve as an example.

# Landscape policies



If spontaneous changes in the landscape are often experienced negatively, a certain number of measures are being taken to try and preserve or improve landscapes. Admittedly, there are also voluntary policies whose effect on the landscape gives rise to controversy: for example, the modernisation of agriculture in the 1960s, or the development of the motorway network; but the aim of such policies is economic and social and the transformation of the landscape is merely an induced effect.

**By policy we mean a course or principle of action adopted or proposed by a competent body or individual, corresponding to a number of objectives, and implemented by means of the appropriate tools<sup>(1)</sup>.** In this chapter we present the various protagonists, the objectives and the tools, in order to provide a framework for the implementation of a policy on a regional level.

## The protagonists

The protagonists concerned by landscape fall into two main categories: supply and demand. Those categories are not always taken together, otherwise the project and landscape tools would be sufficient. The protagonists representing supply are those who, consciously or not, act directly on the landscape: they are the project masters. That means the Communes, the economic forces and individuals, but also certain State or Departmental services (infrastructures: roads, harbours, railways, electricity...).

Those who represent demand are those who wish to have an influence on the landscape. That means, first and foremost, public authorities who are in a position to have a landscape policy (Europe, State, Regions, Departments and, to a certain extent, Communes, whose landscape policies are not so firm). We must also mention associations, which would like to have an influence, but do not have access to all the tools that the authorities have at the dispo-

sal; their principal tools are understanding and awareness, plus a tool that is specifically theirs: lobbying; they more rarely — or marginally — have the means of working out documents for orientation, exercising land control, carrying out studies and operations, signing contracts; on no account do they have power to make regulations.

According to the situation, the same protagonist (for example, the Commune) may be bearer of the supply (for example, with the land use plan) or the demand (when it is the project master).

### *The European union*

The European union, by common agricultural policy, unintentionally influences the evolution of rural landscapes (its objective being economic) and through agri-environmental measures (regulation 2078/92). Its direct concern for the landscape is more recent: project for a European agreement on landscape, at present under discussion, which should adopt the principles of protection, dynamic management and voluntary development.

### *The State*

The State comes in mainly because of its legislative power and its power to make regulations, the protection it can ensure (national parks, nature reserves, regional nature parks, etc.), its investments (new towns, major projects), and also the pilot actions it initiates (landscape plans). Some of the State's powers, whether exercised directly (e.g. elaboration of the SDRIF or the creation of infrastructures) or through important public corporations (SNCF, EDF), have important consequences where the landscape is concerned. But the effect on the landscape is generally not the aim of those projects, and it is often negative. During the elabo-

(1) See Jacques Sgard and Sarah Zarmati, 'De la protection à l'aménagement, un cadrage historique' in *Paysage, grand paysage, Cahiers de l'IAURIF*, n° 106, pp. 14-17. The reader will find a historical survey of these policies.



ration of plans for infrastructures, the landscape is taken into account by the environmental impact studies, through compensatory measures, but it is rarely included in the actual conception of the projects. Likewise, in the elaboration of the «Schéma directeur de la Région d'Ile-de-France», the impact of the new developments on the landscape was not really a determining factor in their stipulation (moreover, the SDRIF of 1994 gave up the idea of an urban designing plan which had been integrated into the SDAURIF of 1976).

### *The Region*

The Region is legally competent in matters of the environment. It initiates the regional nature parks, for example. It can also have an influence on transport infrastructures, which it finances for the most part. This course of action is beginning to be explored in the Ile-de-France. The Town and Country Planning Act also gave it competence in the prescription, elaboration and approval of the revision of the regional structure plan. But above all, the Ile-de-France Region wished to make the landscape not only a strict obligation but also one of its major concerns, by interceding with local actors (local authorities, town and county planners, etc.), usually by means of incentives (contracts, grants, etc.). For the spaces that contribute to giving certain parts of the Ile-de-France their specific character, it can secure land control, particularly through the Agence des espaces verts.

This determination is seen in the policies for creating areas with a natural balance, the green belt, the creation of leisure centres, the acquisition and development of the regional forests, the blue paper on rivers, help in establishing communal green plans and the development of some older ones... More recently, the Region's measures for the environment were brought together in an 'Ecology Plan for the the Ile-de-France'. Some of the parts of this plan that have been published concern the landscape: the 'Green Plan' (which takes up the 'Green Belt'), adding three more sections to it in order to cover the whole of the region (central green open space system, rural belt, valleys and green links); the 'Plan des Circulations douces', favouring cycling tracks etc.; an 'Infrastructure Charter', which is at present being worked out.

### *The Departments*

The Departments can define and pre-empt sensitive natural spaces (ENS). They can also apply a landscape policy to their road network — in investment or in management — as is the case in the Seine-et-Marne department. Some have green spaces services, which create and manage many parks in the department (Val-de-Marne, Hauts-de-Seine, etc.). Finally, they have supervision of the Conseils d'architecture, d'urbanisme et d'environnement (CAUE), an important tool in the creation of awareness.

### *The Communes*

The Act regarding decentralisation gave to the communes competence in matters of town planning. But all of them are far from possessing the know-how, determination and weight that are needed if they are to conduct a coherent policy in that field. The elaboration of local structure plans enables them to exercise that competence with a broader view. The Region also encourages them, through policies such as green plans or through help in elaborating structure plans. Moreover, the Communes have the possibility of taking action where the landscape is concerned, through protection policies, rehabilitation of the buildings or action on public spaces.

Finally, large towns have the means to shape their landscape with structuring projects the large parks in Paris. These projects are an important means of implementing their strategic policies and they contribute to orienting their spatial, economic and social development. Acting as a pivot between urban planning and the building of the city, they help to shape its image and symbolise its dynamism, on a local, national, and even international level. In that, these projects have a strong impact on the way we apprehend the landscape, for they provide landmarks (e.g. the Bibliothèque de France in the South-East Seine operation) or restructure it (Bercy Park, Citroën Park).

### *Private individuals, associations, professionals*

Individuals, societies or associations are the main actors in maintaining or transforming the landscape because of their number and because of the size of the territories they control (farmers, quarry owners, property developers, bill

posters, etc.). But their action is usually involuntary and uncoordinated. However, some do take conscious action on the landscape. Large firms may take important steps (redevelopment of quarries, golf courses, headquarters, sponsorship, and so on), and even very important steps (Disneyland, for example). Natural persons and legal entities can, as far as their circumstances permit, contribute to preserving or improving the landscape: e.g. foundations acquiring spaces in order to protect them, owners who open their homes or gardens to the public, etc. They may also affect the decisions of more direct actors, in particular through associations for the defence of the landscape.

Finally, the professionals (architects, town planners, landscape architects, etc.) are not only project managers in charge of realising the commissions of the clients: they play an active role in creating an awareness of the stakes and problems, in the emergence of new forms, in the orientation of the landscape demand.

## The aims of landscape policies

The authority bearing the 'landscape demand' may have different objectives. The policies in favour of the landscape have moved historically from an objective of strict conservation to one of development, which admits the evolution of landscapes and provides for their management.

### Conservation

Conservation is the easiest objective to define, if not to implement. We have only to look at environmental policy, from the law of 1913 on historic monuments to the Landscape Act of 1993, not forgetting the law of 1930 on sites and that of 1976 on the protection of nature.

### Rehabilitation

Apart from policies to preserve what already exists, there are also policies to improve situations that have deteriorated. Some have been quite successful: for example, the 'reconquest' of town centres, following the Loi Malraux of 1962 and the implementation of scheduled operations for the improvement of housing, generally accompanied by actions on public space in the city. Others have been undertaken more recently: e.g. those to gradually reduce landscape 'black spots', in Savoie and the Ile-de-France.

### Creation

Certain policies have been explicitly aimed at transforming the landscape, either over vast areas or at points of great influence: the creation of leisure centres on the sites of old quarries, the large-scale projects in Paris (Pompidou Centre, Opéra Bastille, Grande Bibliothèque, La Villette, Bercy and Citroën parks, etc.) or the suburbs (CNIT, Grande Arche, Évry cathedral, etc.), and many monuments on a more modest scale. But the large-scale town planning operations (new towns, La Défense, etc.) may also be considered as policies in favour of the landscape, in that they played a role in ordering and structuring the suburban landscape and creating new urban shapes.

### Management

Neither conservation nor development are sufficient to keep the landscapes alive: policies are also needed to support the management of the landscapes that have been preserved or created; tools as diverse as the regional nature parks and agri-environmental measures may be mentioned.

## The tools for landscape policies

Tools are the means that are at the disposal of the authority carrying the landscape demand for influencing either the latter directly or the clients. The tools may be listed from the most direct to the most indirect: control (of the land and the project), regulation, contract, orientation. Before taking any action, whether direct or indirect, the authority must be fully aware of the problems, be able to anticipate changes in the landscape and assess the policies that have already been applied. The tools for understanding, assessing and anticipating are therefore prerequisite to all the others.

### Land control and contracting

The ideal situation is one in which the 'demand' is the owner of the site and can therefore exercise or delegate better control. That is the position that gives the greatest control over the preservation or transformation of a site. By this means, the State can exert a great influence over the evolution of landscapes, thanks to the extensive domain that comes under its control (road network, State-owned forests and rivers,

etc.), or the delegation of the contracting by local governments to the DDE. But concern for the landscape is often of secondary importance in State interventions. The Regions and other territorial authorities (Departments, Communes) have a more limited scope, and their action on the landscape through the contractor is essentially through the structuring role of certain architectural (public buildings) or landscape projects (regional forests, town and city parks, etc.). Finally, it is the vocation of certain public (the 'Conservatoire du littoral et des rivages lacustres') or private institutions to acquire spaces with the aim of protecting them. Public forces may acquire land power by amicable arrangement, by pre-emption in some cases ('Zones d'aménagement différé', agreement between the SAFER and the Region, Espaces naturels sensibles, urban right of pre-emption) and by expropriation for a project that has been declared in the public utility.

### *Laws, decrees and regulations*

These are the most coercive tools. The demanding authority has the power to impose provisions on the clients. Thus, the Commune ('demanding' authority) imposes constraints on petitioners for building permits (clients) with the land use plan, for example; with the SDRIF, the State is the 'demanding' authority, imposing constraints on the Communes, clients of their land use plan. The term regulation is taken here in its broadest sense: it may cover legislation but not the tools other than statutory ones provided by a law (for example, the law on quarries is a 'statutory' tool — in the broad sense — but the departmental quarry plans that it institutes are orientational tools).

Certain laws (particularly blueprint laws and context laws) aim, by instituting contractual procedures or advisory structures, to introduce dynamics (e.g. that of 1962, by instituting plans for protecting and highlighting various sectors; that of 1977 on architecture, by creating the CAUE; that of 1983, by establishing regional nature parks; that of 1993 on the landscape, by providing them with a charter...).

Many laws and regulations are very effective where protection is concerned (preservation orders on monuments and sites). But their wording is often very general, without any shading (they do not seem to know what should or should not be forbidden), and that often limits their scope to protective measures. In land-

scape terms, that is also the case with the most precise regulations, such as land use plans. The so-called 'qualitative' land use plans, certain sectors concerning site plans, the ZPPAUP, nevertheless try to introduce a project dimension into this system.

### *Contract procedures*

The 'demanding' authority negotiates with the client, both parties making a commitment by charter or contract to the advantage of both (the authority achieves its aim where the landscape is concerned and, in return, the client receives compensation, usually financial). Unlike the statutory procedures, these procedures are only opposable to their signatories. But they permit an actor possessing political determination and means other than statutory (i.e. financial) to influence the direct actors. The Region, for example, uses such procedures to implement its landscape policies (regional contracts, grants for the acquisition and development of green spaces, contracts for the opening of private estates to the public...). The regional nature parks rest essentially on a contractual tool, the charter, and on the dynamics that go with it. Contractual constraints (non-constructibility, plantation, upkeep...) negotiated by a territorial authority with a private owner are a tool of this type which is as yet little used in France.

### *Non-coercive tools: orientation, consciousness raising, understanding*

The authority may also act through argumentation: that is the role of consciousness raising, information, advice, training. With these tools, she attempts to make the clients aware of the various elements and convince them, without imposing upon them. These are the least constraining means of influencing the direct actors. But over a certain length of time, they can produce some interesting effects, as may be seen from the role of the CAUE which have been intervening directly or indirectly on the landscape for the past twenty or so years. Some authorities elaborate a framework or a reference plan, which, by its coherence, directs the action of the clients (e.g. the «Regional green plan»).



# Taking action



*The landscape is present -omnipresent. It is an important part of our environment. We develop within it, while it develops around us. And in many ways our daily actions have a direct effect on the development of the landscape, on the slow or rapid changes that take place, on the way we see it.*

*The first thing we can do for the landscape is to understand it, learn how to analyse it, cultivate an awareness.*

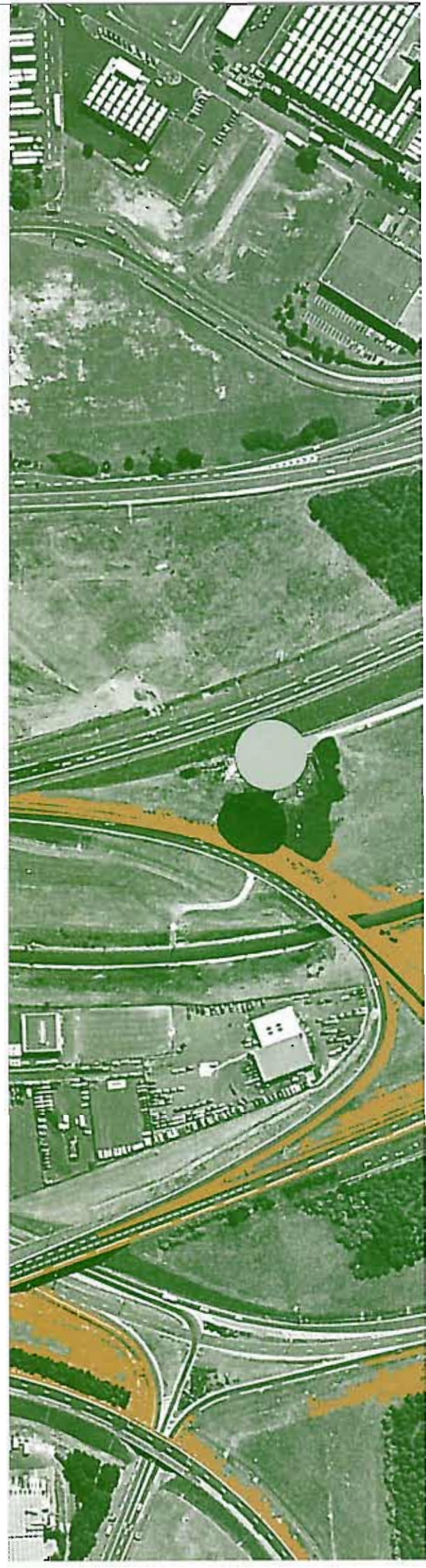
*And when we are fully aware of its importance, of the fact that it constitutes one of our finest heritages, we must then make an effort – voluntary or involuntary – to take that into account in everything we do.*

*In taking action for the landscape, we find ourselves at a crossroads, faced with three triple problems : the problem of space (urban, suburban and rural); that of «the act»involved (designing, improving, preserving); that of the type of landscape (recognised landscapes, ones that are constantly evolving, and ones that have been forgotten).*

*The complexity of all those aspects means that this second part, which we have entitled «Taking Action», cannot possibly claims to be exhaustive. Its aim is simply to approach and illustrate with examples the main themes of action where the landscapes of the Ile-de-France are concerned. We have thus taken up nine of those themes, from active design to conservation, from the very urban to the very rural, from the recognised landscape to the forgotten landscpae.*

*Each of those themes is associated with an action : designing, recomposing, reorientating, preserving, managing, and so on.*

*The full set of themes described thus represents a sum total of experiences that may serve as material for all types a consideration on the subject of landscape, from streets to new towns, from a single tree to a forest...*





# Designing with the landscape



Changes in the landscape occur for a wide variety of reasons. The type of crop planted in one agricultural zone is changed, another becomes a wasteland. An area in which business is collapsing, or an old, once heterogeneous part of town is cleaned up and transformed in the course of real estate development. Formerly well spaced residential suburbs are becoming denser, and so forth.

These changes happen because they are made to happen by a number of different forces and individuals acting — under well-defined conditions — according to their particular interest. A relationship exists between the elements making up a landscape: they form a system. A change to one physical entity in a landscape can well affect the whole. How can these changes be dealt with and controlled so that they contribute to improving the overall living environment and create a legible landscape with its own identity?

Conservation of the environment, the needs of inhabitants to recognise each other in the places in which they live, the search for coherent and distinctive landscape are taking on increasingly important emphasis in public opinion and confirming the need to ensure that any change to a region will improve the overall living environment. Regional authorities are seeking solutions adapted to these concerns, visible in the inclusion of guidelines on landscape and environmental matters at all levels of their town planning documentation.

A vast number of different schemes are changing local landscape and combine to radically transform it. But their approach of landscape varies in quality, according to funding, know-how, and the sensitivity and specific attitudes of the project's originators. Accordingly, the upgrading of comprehensive analyses and the search for a shared attitude should be carried out in such a way as to assist project management to better assess the varying qualities of regional landscapes, and to help designers tailor their schemes to them.

## An attitude: design with

Almost 30 years ago, Ian Mac Harg's book *Design with Nature* was translated into French under the initiative and direction of the Paris Regional and Town Planning Institute (IAURP) and under the title *Composer avec la nature*. This pioneering work opened the way to environmental elements being taken into consideration in regional planning.

Today, concern is centred not only on the environment — a physical concept — but also on the landscape — a cultural concept. The «design with» approach can be extended to include the pre-existing natural and cultural dimensions of a project: contours, ecosystems, land division, the memory of the experiences of inhabitants, traces of the past covered by time (previous traces never being completely eradicated). **To design with the landscape is to refer to that which already exists, to that which it has acquired over time, and ensuring that new initiatives are in line with integration measures.**

This was, in fact, the attitude taken up by all site transformations until this century, when it became possible to overcome the many restrictions of a site by technical means. The abuses of development detached from the environment have led to a more conscious application of this same attitude.

This awareness is only recent, and the precise nature of a corresponding attitude is still being formulated<sup>(1)</sup>. Several concerns will clarify the approach. The first relates to the space itself and to the past of the site in question: above all, it considers the site of the project and, in order

(1) In France, several schools of thought have attempted to formulate and implement an attitude towards landscapes, with results that are in fact more convergent than the arguments among the experts would lead us to believe. There are two prominent schools: the more pragmatic of the two is represented by the landscape architects Michel Corajoud and Alexandre Chemetoff, whose thinking is developed from practical experience; and a more philosophically oriented school, inclined towards the elaboration of a theoretical corpus, is grouped around Bernard Lassus, Augustin Berque, Alain Roger, Michel Conan, Pierre Donadieu (cf. the publication of these 5 authors *Cinq propositions pour une théorie du paysage*, Seyssel, Charup Vallon, 1994). A seminar, organised by the IAURIF in 1993 compared the French approaches to those of American specialists (Carl Steinitz) and the experience of the IAURIF, influenced by Gerald Hanning (*Paysage grand paysage. Les Cahiers de l'IAURIF* (IAURIF Journal), No. 106, December 1993). The work of the Journal of the French Association of Architects, *Le Visiteur*, edited by Sébastien Marot, should also be noted. We draw particular attention to the article entitled «L'alternative du paysage» in issue No. 1 (1995), pages 54-81.

to pinpoint the choice of spatial structures imposed by the project, an assessment is made of its original features, its value, its restrictions and its potential.

The second concern relates to the future and views the landscape as a process rather than a product. The relationship between the original planning and the action undertaken to commence the duration of the work for a given period is to be considered in such a way as to enable ongoing management of tangible changes to the site and the inevitable downstream reorientation. The project — necessarily spread out over a length of time — is managed from its beginning to its completion and then, in order to ensure ongoing management, on through the full life of the completed project.

Thirdly, a general concern is to place more importance on relationships than on physical entities: to aim towards ensuring, at all stages of the development, that the project remains appropriate to the people who live in the community involved, tight management of the space, and coherence of the landscape at all levels, uniting it both near and far. It is also important to maintain links between the different parts of the project and with the environment; and to manage complexity and indecision<sup>(2)</sup>.

## To «design with» the regional landscape, its structure must be understood

The first section «Understanding» amply demonstrated how important the analysis of relief, land occupation, textures, ambiances and (perhaps most importantly) the organising geometry, is necessary to an understanding of Ile-de-France landscapes. Taking these elements into consideration is an indispensable prerequisite to any action to modify either a landscape's character or structure. This consideration is necessary to the project's integration and any rupture (if voluntary and considered) it will create in the landscape.

A landscape's connection with (belonging to) an identifiable entity — country, valley, plain, etc. — is also a characteristic of that landscape. Consideration of this feature is more subtle and linked with specificities of architecture, urban forms, rural occupations and the nature of the land, etc.

### The nature of contours

The relief of the Ile-de-France is marked by the subtlety and sensitivity of its lines. Major directions are traced out by its waterways, which have played a determining role as natural routes for communication and development, particularly in the positioning of Paris. The different levels (plateaux, plains and valleys, intermediary terraces), separated by slopes, form identifiable and valuable legible wholes.

The extension of urban space and its growing complexity call for the preservation of this legibility which is, moreover, one of the factors marking regional identity. Paris has imposed a certain relationship between urban forms, their volumetry and their site, and this still remains a vital element in the configuration of new landscapes.

However, «experience over the last few decades has shown that the technical means enable a large number of massive structures to spring up from the landscape. They can be compared in size to a geographical mass and can, if we do not take heed, totally change the nature of a site»<sup>(3)</sup>.

Certain special programmes may, because of their recognised symbolic value, call for exceptional measures, but **if the nature of a regional site — in terms of its identity and legibility — is irreplaceable, then three different measures are called for: measures to protect the overall site, site rehabilitation initiatives and actions aimed at emphasising its intrinsic qualities.**

### Land divisions and layouts

The place occupied by land parcelling in the organisation, management and transformation of a landscape has been demonstrated and detailed in numerous studies<sup>(4)</sup>.

**Development initiatives must take the parcel into consideration.** The parcel is an indication of the land's appropriation and reclamation. It forms a legal and fiscal unit (established by the land registry). Its limits, always visible on the site, are often made up of constructed, terraced or planted elements. It is more than simple lines on a plan: it has a relationship to the contours and superstructure affected by regulations covering the layout of buildings and vegetation. Moreover, it is indissociable from the apportionment of rights and responsibilities concerning the use and maintenance of spaces and their landscapes.

**The land division is an effective method to understand the organising structure of the landscape from the viewpoint of the project in hand.** The parcel is an autonomous basic unit functioning within a rural or urban region covered by the ongoing (*pavant*) system of the property mosaic. A region must be understood as a whole in which natural and human elements combine to form, on the one hand, the structure of the landscape (in terms of perception) and, on the other hand, a human environment.

The land mosaic of today is the product of the stratification of parcels and articulated, juxtaposed and superposed roads

(2) These concerns can be compared with the four features characteristic of the landscaping approach described by S. Marot (*op. cit.*, pages 70-71), at least the first two: a rereading of a region's past provides evidence of the gestures which have gone into fashioning the landscape in question and not another (the 'palimpsest' — used by medieval copyists — and the school blackboard are often used as a metaphor: they can be written on over and over again, without ever totally erasing the preceding text); the landscape as a process rather than product; to see the substance — and not just the geometry — of open spaces, with all their variety and complexity, attention to surrounds, inter-spaces, and to transitions.

(3) General Report of the Urban and Regional Development Plan for the Ile-de-France, 1976, p. 108.

(4) G. Hanning et al. *La trame foncière comme structure organisatrice de la mise en forme du paysage*, Paris, IAURIF, 1976 (publication cited in Part I).



whose oldest sections have kept their original lines, been obliterated, or have disappeared<sup>(5)</sup>. Parcelling (land and roads) is integral to a region's identity. It is vital to know and understand the assets and constraints of this structure, both in detail and overview, as soon as a proposal is made to add new elements to the existing landscape and to design by incorporating the inherited space. These considerations are fundamental to any initiatives undertaken.

### *The overall structure of the Parisian Basin*

The first section (in chapter «The Composition of the landscapes of the Ile-de France») showed, at regional level, the superposition of a radio-concentric structure and a dominant west-north-west/east-south-east axis. The concentric structure is the most perceptible; while the first wooded periphery, taken over by urbanisation, is no longer recognisable as the threshold of the Paris urban area, the second is still seen as the threshold of the Ile-de-France. The siting of tollgates on highways also has something to say about the perception of major forests as thresholds: the Fleury tollgate on the A6 at the entry to the Fontainebleau forest before the Gâtinais; the Saint-Arnoult tollgate on the A10 in the Dourdan forest (extension of the Rambouillet forest) at the entry to the Beauce; the Senlis tollgate on the A1 on the edge of the Trois Forêts (Chantilly, Ermenonville and Halatte) on the threshold of the Valois.

More generally, the predominance of radial highways has meant that their users find the same sequences — dense city, suburbs, outlying countryside, large forest, large crop-growing plateau — which tend to make us forget the differences between these roads and the different regions surrounding Paris (Plaine de France, Brie, Gâtinais, Hurepoix, Vexin...). The specificity of the various exits from Paris conurbation should be revived through the implementation of landscaping schemes for each major radial itinerary (cf. below: «Reinstating the communication routes»), through initiatives strengthening the identity of these areas (cf. below: «Entities and identities») and through the conservation and management of the «key spaces» formed by the extensions (via open spaces) of these regions at the fringes of the urban area (the Brie-Comte-Robert, Nozay and Saclay plateaux...)<sup>(6)</sup>.

As far as the WNW-ESE axis is concerned (the Goële hills, the Thoiry ridge, the Hollande ponds, the Montmorency valley, the historical Paris axis), it should be given greater recognition and taken into consideration as a key element in the development of sectors through which it passes.

### *Entities and identities*

In order to «design with» regional landscape, it is essential to determine the entities of which it is composed and recognise the factors which identify it. The problems asso-

ciated with the landscape frequently revolve around their identity: we expect a landscape, as we would a name, to reveal the identity of a place, and for it to be attached to one specific place and no other. For a place, as for a person, the physiognomy and name are the most obvious identifying factors, expressing other identifying factors such as history, characteristics, relationships... In the same way that the name of a country can evoke that country's many facets<sup>(7)</sup>, certain landscapes immediately identify their region: wheat-fields as far as the eye can see, a spire reaching up from their midst — where else but la Beauce? Row upon row of chimneys above zinc-covered roofs — where else but Paris? This identifying function, common to both name and landscape, leads us to consider place names (as well as landscapes and monuments) as heritage.

Part 1 («Local Identity» in the chapter «The composition of the landscapes») showed that identified places — or entities — vary greatly in size, from the «pays» to a tiny locality, from a city to an inner district. Certain entities, such as la Brie, la Beauce, le Vexin, are region-wide and considered as a *pays*; others, such as la Bassée, are sub-regional; yet others, such as the Goële hills, the plain of Versailles, the Saclay plateau and the Montmorency valley, are «intermunicipal». And each commune covers a mass of tiny localities, each with their own identity and history. Regardless of the scale of these entities, each forms a territorial unity; they are not simply different types of landscapes but authentic *pays* and tiny localities.

A place is not only identified by its name, its nature, its unity, but also by its limits. Fernand Braudel has described how the features of a changing landscape, such as thresholds, steps and surrounds, say much more about a site than would a study of its dominant characteristics<sup>(8)</sup>. These transitions are all the more important as they frequently have specific characteristics, different from those of the entities they separate, and they are all the more extending as they have vague and changing borders. This is one reason why landscape projects and the approach described at the beginning of this chapter are particularly concerned with fringes, interspaces and surroundings.

We thus have **four identifying factors for a given place: a name; a specific landscape; a territorial unity; and the fringes** (having their own identity). **These four factors are threatened or already erased by modern development and land occupation.** The landscape is robbed of its originality both by the loss of its local homogeneity and the uniformisation of construction, infrastructures and

(5) Cf. «The geometry that lies behind the organisation of land use» in the chapter «The composition of the landscapes of the Ile-de-France».

(6) The bringing to the fore of Ile-de-France's radio-concentric structure, the thresholds, the spread of large areas of country around Paris, their extension in 'key spaces' and the role of open spaces are dealt with in a study by Jacques Sgard. *Les grands paysages d'Ile-de-France. Document d'appui aux démarches d'aménagement*. Paris, LAURIF, 1996.

(7) Some authors have well described the evocative power of names, in particular Marcel Proust in «Nom de Pays : le nom», the third part of *Du Côté de chez Swann*.

(8) *L'identité de la France*. Quoted by Alexandre Chemetoff in *L'Architecture d'aujourd'hui*, No. 303, 1996, p.63.

farming systems between regions, and by the accompanying similarity between ways of life (between regions, between town and country...). Territorial unity is broken up by linear infrastructures, which only replace roads, major water channels and, sometimes, animal corridors. Views and, to an even lesser extent, a feeling of coherence and the possibility to circulate freely are not being restored. Transitions (urban fringes, borders, slopes...), spaces too complex for functionalist logic, are the most neglected.

Place names, as much a heritage as a landscape, are as frequently threatened. The names of major regions certainly have a better chance of surviving: two centuries of Seine-et-Marne have not effaced la Brie. Certain regions have been taken up by regional nature parks (Vexin, Gâtinais) or by «pays» — as defined by the *Schéma national d'aménagement et de développement du territoire* (national development scheme), Bassée-Montois for example. However, a great many names of tiny localities have disappeared, or are about to, following urbanisation and infrastructuring. As long as a site remains rural, its inhabitants, the cadastre and maps conserve their place names and, through them, historic or landscape features often forgotten elsewhere: ponds, windmills, hunting grounds, vineyards, etc. Progressive urbanisation is briefly conserving the place names of paths which become streets. But planned urbanisation too frequently erases this heritage by giving streets the names of celebrities, or even plants or animals (which are repeated throughout the length and breadth of France). Awareness of the problem in certain municipalities, such as Paris, has led to the conservation and even restoration of earlier street names. New urbanisation should conserve this heritage by taking care in the naming of newly-created streets.

How, today, can we regain a memory, a relationship to the geography, a feeling of belonging? How can we maintain an identity while undergoing inevitable, if not desirable, developments? It is vital to recognise the importance of the relationship with an entity whose distinctive heritage could be weakened, or that could disappear because of developments. This would produce a dynamic capable of countering this phenomenon, as demonstrated by a number of joint initiatives on the part of several communities, prompted by regions (regional nature parks), the government («pays»), and other structures.

## Understanding and informing

A regional landscape must first be understood if we are to «design with» it. Ensuring that a landscape's common culture and heritage is shared is a challenge. This involves considering land as heritage and not simply as a medium to be developed, concern for the site of the project (regardless of its size), a recognition of common values inherited from the same history, and the will to upgrade the landscape without fear of innovation.

This is why tools such as consciousness-raising, diffusion of information, consulting, training — the influence of which is initially less apparent than regulations and major schemes — are also just as important. Their effect can only be seen in the long term; with hindsight we can judge the success of a certain number of initiatives: the awareness campaigns carried out for the last 20 years by the Town Planning, Architecture and Environment Boards (CAUE) has influenced the general modernisation of rural construction by restoring its character, marred by earlier additions and restoration works in the previous decades; the return to favour of roadside plantation owes much to the work of the Landscape Committee of the Environment Ministry, set up some fifteen years ago. Because the results of this type of work do not become evident in the short term, permanent structures should be set up to implement it (this is the case for the two previously-mentioned examples and for the regional nature parks, their duration being one of the keys to their success).

A wide range of tools can be used to encourage this culture of the landscape, from the work done to increase understanding, to action guideline plans. A large amount of description and analysis work has been done, but it is mainly monographic (by region and, more frequently, by municipality), and there are still few synthetic works for the region, either thematic or geographic. Area reviews do exist, including landscape atlases and, in their descriptive sections, «Plans de paysage» (landscape plans)<sup>(9)</sup>. The Ile-de-France is unevenly covered by this type of documents and still does not have a regional landscape atlas. Several thematic reviews have been drawn up, at the

(9) The main references in this area are *L'Atlas des pays et paysages des Yvelines* by Alain Mazas and Alain Freytet (Versailles, CAUE des Yvelines, and Grenoble, Éditions Courcoux), and the *Plan-guide pour la valorisation des paysages des Hauts-de-Seine*, by Bertrand Folléa and Claire Gautier (Nanterre, Direction Départementale de l'Équipement des Hauts-de-Seine, 1995).



IAURIF especially: land use pattern, regional historical cartography, analysis of the identity of major landscapes, artistic and literary representations, visibility areas<sup>(10)</sup>... Research already undertaken in these fields opens up numerous possibilities, which need to be followed through. Work done on understanding landscapes should not only cover the subject (landscapes, their components, their structure), but also the improvement of methods for observing them. This is the direction taken by work at the *Observatoire photographique du paysage* (landscape photographic observatory) set up by the Environment Ministry<sup>(11)</sup> and the *Imago metropolis* project, developed by IAURIF, simulating the evolution of major landscapes by computer-generated image.

People must also be taught to look at their environment. Exhibitions, books, public photographic contests can all play a role in this process, but it is during initial training that this teaching assumes maximum importance, so that a true, in-depth — rather than just superficial — culture of the landscape can be created. It can be done at two levels: general training, from kindergarten to high school; and the professional training of anyone wanting to work in related fields — architects, town planners, engineers, project managers, etc. All initiatives directed towards children — discovery projects, initiation to the landscape in school syllabuses, design contests, etc... — should, in collaboration with teaching staffs, be encouraged. Tertiary education (architectural and engineering colleges, universities...) should, with more than a few courses on the landscape, restore the culture of the land and of the project which, from the 17th to the 19th centuries, built roads, canals, towns and cities in harmony with their site.

Knowing the influence of artistic representations on how people look at the landscapes (cf. Part 1 above), support for creative work can also contribute to how we treat our landscapes. The government, regional and local authorities and regional nature parks could all take a specific interest in landscape representation (among other themes) in their policies supporting cinematographic, literary and pictorial creativity.

## Taking action relevant to a landscape's dimensions and environment

To design with the landscape is also to act at all levels (especially at regional level) and not just at local level, where it is the most easy to implement a project.

### Working on a large scale

To «design a landscape with the landscape» requires the use of raw materials, «natural» or not, co-ordinated or not, according to the whim or the will of the designer, the creation of solids and hollows, the juggling of heights and densities, continuity and rupture. **The conceptual approach**, which

precisely defines a project within a space, **is commonly established on an operation scale**, rarely on a city scale, and only exceptionally on the scale of a «pays» or a region. **Another approach involves fostering initiatives or channelling them through established, statutory or contractual frameworks.** This approach can be applied to an overall region by drawing up town planning documents (landscape plans, development plans...). Both approaches have a point in common: they should be applied at all scales of planning — from regional to village or hamlet scale —, with the same approaches, the same concern for existing landscapes and the same will to carry them through. While this is frequently the case when it comes to extending a small town or hamlet, it is clear that, at the other end of the scale, the will expressed in regional development plans have so far gone unheeded. It is important, however, to implement these initiatives on a large scale in order to prevent a blurring of the legibility of the Ile-de-France region's identifying features. To this end, several approaches can be adopted; four of these are detailed here, although this list is not exhaustive.

**The structural lines presently organising the large-scale layout of regional landscape should be taken into account, restored and enhanced.** These include the major historical axes, royal highways and vistas, which have organised the evolution of the landscape around them for the last three centuries. These ensembles should be systematically pinpointed and marked out, so that projects to develop open and urban spaces fit into this network and so that outstanding points on the lines can be developed.

**Certain large sites which are regional landmarks should be enhanced:** confluences, edges of plateaux, mounds or hillocks in positions important to the legibility and identification of regional areas (for example, the Villeneuve-Saint-Georges constriction, the slopes of the plateau over the Créteil-Bonneuil plain, the Chalifert and Corbeil spurs, etc.). These sites must be conserved and enhanced. A first series should be marked off according to their size and location in relation to the major communication axes. A report on the current situation of slopes and crests (constructed, wooded, planted), their structure and known projects would enable their enhancement to be defined. Initiatives should also be undertaken to develop major vistas and viewpoints located on outstanding contour points. Conceived to upgrade landscape legibility and to remediate current situations, they should be taken into account well upstream in the design of infrastructure projects and when town planning documents influencing land use are being drawn up.

(10) For the land use pattern, cf. G.Hanning et al. *La trame foncière comme structure organisatrice du paysage* (op. cit.) For regional historical cartography, *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 118-119 (yet to be published). For the identity of major landscapes, J. Sgard, *Les grands paysages d'Ile-de-France* (op. cit.). For artistic and literary representations, cf. «Landscapes: perception, dreams and experience» in Part 1 above, and a more detailed document to be published shortly at the IAURIF.

(11) Cf. *Séquences paysages*, journal of the Landscape Photographic Observatory, 1997, No. 1.



**Master plans of the qualities and constraints of major landscape entities should be drawn up** in order to foster understanding of existing heritage values; they would aim at integrating new developments into their former context when an urban development scheme is being drawn up (recovery, extension). These plans would facilitate the taking into account of site specificities and their ground and landscape structures in order to incorporate them into design work, and to ensure the temporal and spatial continuity of the landscapes and the consideration of environmental factors (for economic management of water run-offs and the restoration of biotope corridors...). In particular, these plans would facilitate the conservation and restoration of land areas, witnessing the history of a region and its landscape (open fields with narrow parcels, orchards, walls, etc.) and integrate them into the composition of open spaces in urban and rural landscapes, as this was done in the creation of Cergy-Pontoise new town.

**Enhancement outlines for valleys could be drawn up:** valleys comprise particularly exposed geographical sectors. The contribution of valleys slopes and ridges to legibility and identity has already been pointed out. The banks of major and minor rivers and their accompanying hillsides, wooded fringes and constructed areas frequently merit consideration. But they cannot be dealt with alone; their development would require the drawing up of landscape plans. Their value in landscape terms ranges from the river to as far as the eye can see:

- in the longitudinal direction of watercourse and hillsides;
- in the transverse direction (configuration of different sections of the watercourse, views of it, link with ridges);
- in the links between the ridge and the organisation of the landscape of the plateau beyond it;
- in the configuration of the hillside ridge, in its relationship with the slope and, beyond, with the valley's bottom and horizons.

### *Acting according to different scales*

The regional dimension of landscapes is thus still rarely taken into account when a project concerns a landscape. A few exceptions occasionally demonstrate the similarity of problems on every scale. An example of this similarity is the distribution of solids and hollows between an urban area in its whole and any given section of it, between a new town and a hamlet<sup>(12)</sup>. Urban extension is carried out on every scale: a regional plan will define the siting of new towns, a planning authority will design the outlines and the different districts, define the links to the town; a city or borough will fix perimeters of the development at the fringe of the urban area; a village will decide the future of its new housing development; a hamlet will permit a house to be built outside of its current confines. In each of these projects and in each relevant tool (development plan, land useplan, local project...), the same approach can, relatively speaking, be

found: design with what exists, structure, ensure the network, negotiate fringes and rims, preserve open spaces, organise networks into a hierarchy... There are many examples: the conservation of a major site (such as Vexin) and of a rural wash-house, the restoration of a town-center or of a house... All initiatives, on whatever scale, have an effect on the landscape as it is perceived or experienced.

### *Acting in accordance with environments*

Landscapes are dealt with differently in the centre of an urban area than on the rural fringes of a region. There are urban landscapes and rural landscapes; there are common problems and specific problems. These two worlds are not cut off from each other however and are increasingly overlapping. The interface, which shapes the outlying urban environment, must be taken into account: it is more than a simple intermediary between urban and rural areas and forms a complex fringe. The linear spaces which cut across other environments must also be taken into account. These represent the four parts of the *Plan vert régional* (regional greening plan): the urban area, the green belt, the rural belt, the valleys and liaisons.

**The urban environment** is formed by the dense section of the central urban area with no cultivated spaces. Free space still exists and plenty of room can be left for natural elements (water, pervious soil, vegetation...). However, the landscape is mainly structured by construction. An urban environment also exists in smaller external areas such as Meaux, Montereau and Mantes.

**The rural environment** is formed by cultivated or wooded space, dotted with villages and farm houses. It can be strongly marked by infrastructures and quarries, but these are dominant elements only from a local viewpoint. In all cases, the land itself, much more than in the urban environment, supports economic activity — whether this be agricultural activity, materials quarrying or communication routes.

**The peri-urban environment** is where urban and rural features are both so obviously present that none of them can be ignored. It stretches from the fringes touching the countryside to the edges of the dense city. At the one end, the built-up landscape is still strongly marked by its rural character, at the other, the organisation is urban with much fewer references to its rural past. But in all cases, structure comes from land division, public highways, certain voluntary lines and public space rather than from construction.

**Linear and transverse** entities can be natural (e.g. valleys), or man-made (e.g. communication routes). But both these types have several points in common: valleys and roads pass through city and countryside; historically, valleys provide the preferred crossings for principal communi-

(12) This structural similarity between the whole and its parts on all scales is typical of that which geometers call a «fractal» object. Work in progress (P. Frankhauser, University of Franche-Comté, Besançon) shows that fractal geometry provides interesting models for the study of structures of urban areas and the distribution of densities.

cation routes. Then, more specific to the Ile-de-France, valley and communication networks are both mostly radial and most axes have a predominantly urban aspect on one side (the centre) and a rural aspect on the other (the periphery). While the Seine valley is rural upstream, urban in the centre of the region, then rural again, almost all its tributaries have a rural upstream environment and an urban downstream environment.

### Creating, conserving, restoring

On every scale, in all environments, schemes aimed at improving the landscape are centred around three main themes: creation, conservation and restoration. **Creation involves the configuration of new landscapes** and the constant search, in regional planning, of the best form, structure and appearance for the area involved. **Conservation is tied to the notion of heritage**, in terms of recognition, enhancement and management. **Restoration deals with deterioration**, «blackspots», «critical situations» — as well as other verbs with «re-»: reinstate, restore, recover.

These three types of initiatives can be associated with the three kinds of spaces they mainly concern and which can be respectively referred to as «constantly evolving», «recognised» and «forgotten»<sup>13</sup>. It is clear, however, that no one space or landscape will entirely fit into only one category: heritage is frequently downgraded and needs to be restored, neglected sites reciprocally conceal forgotten qualities, constantly evolving areas have both wounds to be healed and assets to conserve and develop via transformation. It is also clear that certain people recognise, while other neglect; there are always architects who celebrate the chaos of suburbs and painters or film directors who reveal their beauty. And the same area can pass from rejection to recognition. From an overall viewpoint, however, most areas have one dominating feature to which a policy can be applied: it is indisputable that the Marais in Paris, the parc de Versailles, the Fontainebleau forest and the Roche-Guyon hillside must be conserved; that the *grands ensembles* (large residential estates of the 60s) and city «entry-points» must be reinstated; and that the Plaine-Saint-Denis, the quarries and new highways are creations of new landscapes.

There are no valuable and valueless landscapes, but a «landscape's value» is not always apparent and, in some cases, is yet to be created.

### Designing new landscapes

Major projects and development schemes on changing spaces and regions totally transform pre-existing landscapes. When these projects involve conservation or rehabilitation we must work with the site's existing merits and values, but a context of new landscape design allows a certain amount of freedom in the configuration and conception of constantly evolving spaces.

**Vast regions which are to undergo overall transformation to open them up to new urbanisation or to change their activity** (e.g. the re-use of industrial wastelands), **become entirely new landscapes in themselves**. New towns, currently under completion, illustrate the overall transformation of rural and urban landscapes. In the Ile-de-France, a few areas are still concerned. Other than the last sectors to be urbanised in new towns (Sénart in particular), these include «strategic sectors» as they are referred to in the Ile-de-France development plan (SDRIF): the large holdings undergoing transformation in which the city is being reconstructed over the city (la Plaine-Saint-Denis, the river Seine downstream, la Défense west) and urban extension zones (Roissy, Plateau de Saclay). These areas could and must be marked down for authentic urban design schemes (developed below in «Designing towns»).

**Major localised projects radically alter their site**. This site thus becomes a new landscape, even though there more former traces than in the previous case will still be apparent. These projects must interact with their sites in such a way as to make the newly completed landscape and its site coherent and harmonious. Far too frequently, these projects are conceived to meet purely technical criteria, or architectural criteria relating only to a given construction, without consideration for how it will modify its site. Like the Eiffel Tower, which definitively marked the Parisian landscape, the Grande Arche de la Défense, the Stade de France at Saint-Denis and the Bibliothèque de France are now major Parisian land-

<sup>13</sup> These are the three terms used by Jean-Louis Pagès in references to urban spaces in «Plaidoyer pour une reconnaissance du paysage», *Les Cahiers de l'AURIF*, (AURIF Journal) No. 102, November 1992, pages 37-44.



marks, such as major public facilities, although the latter are less prestigious.

**Major linear infrastructures can have an extremely important influence on the landscape around them.**

Because of their length, often vast stretches of land are concerned. They can represent localised work of particularly large volume (road viaducts such as the A15 at Gennevilliers, the A3-A86 at Rosny; major highway interchanges such as Bercy, or Saint-Cyr/Bois-d'Arcy/Saint-Quentin), which totally transform the scale of an area. Even their ordinary sections radically alters how a site is perceived, leading in turn to a rapid transformation of their surroundings. They are also new viewing positions which alter the way a site is seen.

Solutions must be sought out to integrate these types of works, to deal with ruptures of scale, use and practices (developed below in «Designing the linear infrastructure»).

***Taking the existing «qualities of a landscape» into account***

Some elements, groups, lines and structures play an essential role in the identity, legibility and harmony of the Ile-de-France landscape: slopes and their view points, large and small rivers, their banks, natural diversity, open space and wide horizons, rural spaces, major historical axes, landscape and architectural heritage, the unity of an urban fabric... These qualitative elements of a landscape have been conserved down through the years and survive despite the developments and transformations which can threaten them. But they are not always recognised.

Actions carried out on these landscapes should first aim at identifying them, at ensuring that their inherent value is recognised by those who could directly or indirectly change them — public and private project managers, local authorities, local authorities — and at having them taken into account by the people involved. This can lead to the conservation and protection of that which exists. But conservation measures do not always prevent deterioration, nor do they ensure maintenance. Management is just as vital to the conservation of a landscape as it is to that of a building or isolated monument.

Identified landscape qualities must also be enhanced, promoted, highlighted to give a suitable context to the elements possessing the qualities, to integrate them into the structure, to organise the development of the surrounding landscape. The evolution of a region is not only inevitable, but frequently desirable. An area can be developed while retaining its identity, and its evolution contributes to the enrichment of its heritage. Defining how to «take into account» landscape qualities does not exclude the conscious modification of an existing situation via these initiatives.

The existing qualities of a landscape vary in nature: they can stem from form, function or memory... They vary in

range: a quality can come from a physical entity (natural or architectural heritage) or from the structures which form these entities and which can survive while their constitutive parts change (rural landscapes, urban fabrics...). They also vary according to their level of recognition: a quality can be recognised and conserved, recognised but not conserved, or it may need to be identified and made known.

**The level of recognition is not always that merited by the landscape qualities.**

Some of them are not only recognised but fall under the laws aimed at conserving historical monuments (1913), sites (1930), or nature (1976). Others can be found in surveys and inspections which identify them, bringing them to light, but not necessarily conserving them. The following can be cited: relative to natural heritage, the ZNIEFF (natural areas of floral, faunistic and ecological interest), relative to cultural heritage, the surveys (including advance surveys) carried out by the DRAC (regional division of cultural affairs), relative to landscapes, the «strategic landscape entities» map drawn up by the DIREN (regional environmental division).

However, conservation measures instituted by law have always been aimed at only monuments, sites and ecological zones of outstanding interest. And as their implementation depends on the support of the organisations and people involved (associations, local government, private individuals...), they are unevenly spread. Other qualities equally deserve to be identified, revealed, taken into account or conserved. This is the case for rural, agricultural and forest landscapes, parcel patterns and urban fabrics made up of elements which would be of little interest in isolation. In the latter case, the qualities are associated with the environment and not just with the monument (develop the surroundings, conserve vistas and viewing cones...), with the whole and not just the individual element. In the same way, some industrial landscapes, inner suburbs and canal banks which have been the subject of paintings or films are of a cultural or historical value not covered by existing conservation measures.

**The nature of the qualities to be conserved and which contribute to overall landscape quality can fall into several types: formal, structural, productive, ecological, recreational or associative.**

**Formal quality** is that which is directly linked to aesthetic sensitivity (which does not preclude such a sentiment from being attached to other qualities). Formal quality is recognised in picturesque landscapes, in the forms and materials used for high quality architecture, in the special dialogue between constructed elements and the configuration of a site (the urban skylines of Montmartre, Mont Valérien, la Défense...). It is also present in harmonious structures with more commonplace elements such as streets with homogeneous features (height of buildings, building line, layout, urban configuration).



**Structural quality** is that which **brings order, coherence, legibility and harmony to the landscape**. It is both functional and aesthetic as it provides bearings. Structural quality stems from strongly identifiable elements constituting the landscape (rivers, wooded slopes, urban fore-parts...), from isolated elements (farms, bell towers, water towers, silos in open landscapes, buildings standing higher than the urban canopy) which create landmarks in the landscape. It also partly stems from breaks in the urban setting — green spaces, «green belts», residual open spaces — which give urban entities individuality and provide breathing spaces in the urban conurbation.

**Productive quality should not be separated from the other types of quality** without running the risk of meaningless formalism opposed to a harsh functionalism. The relationship between productive quality and landscape quality is quite obvious in a rural environment where agricultural and forestry activities play an important part in the forming of landscapes. But it is also important to consider the productive quality of industrial landscapes, major infrastructures and even commercial zones.

**The ecological quality of different environments** (forests, slopes, marshes, etc.) **is expressed in the landscape**. This is a quality which deserves to be better understood and more recognised, especially in order to improve the management of extremely fragile spaces.

**Recreational quality mainly relates to wooded spaces** in rural and peri-urban areas **as well as in urban green spaces and walks**. Agricultural spaces can also play a recreational role, particularly in peri-urban spaces, to meet the heavy demand of city dwellers.

**Associative quality is that relating to memory**. It is recognised in monuments or places associated with historical events, celebrities or known artistic representations. More widely, the attachment of an individual or of a social group to a landscape is strongly linked to the memory of all that has been experienced in this place or that the place evokes, particularly when it has a long past. This is particularly true for rural areas, which has supported civilisation over thousands of years and to which many of today's citizens, while they no longer participate in the creation of the landscape, still have close attachments. It is also true for

industrial suburbs in which a working-class culture has evolved.

The recognition and identification of these intrinsic qualities should be made the subject of careful studies aimed at taking them into account in urban planning documents and projects. Existing landscape qualities also include those of non-constructed but planted entities and constructions and built-up assemblies. The landscape is the sum total of these qualities.

### *Restoring the qualities of a landscape which have deteriorated or are concealed*

There is no doomed site and a landscape always possesses some intrinsic qualities. But, in many places, they have deteriorated or are concealed. These sites can be described as «blackspots» (limited elements impairing a site larger than the area they cover) or «critical situations» (in which the word «situation» describes both the place and the transformation mechanism)<sup>(14)</sup>. The chapter entitled «Recent evolution in the landscapes of the Ile-de-France» showed the different types of highly critical situations according to the preponderance of the process: discontinuity, neglect, rupture of scale, destructured sites (city entry points in particular), deterioration of land or geographic elements, deterioration of outstanding sites.

These sites must be restored, reinstated or reclaimed in order to recognise and reveal their forgotten intrinsic qualities and, frequently, to create new qualities in line with the site's potential.

(14) Cf. Michel Desvigne: *Paysages d'Ile-de-France. Les situations critiques*. Paris, IAURIF, 1996, cited in Part 1.

# Designing towns



**F**undamental to urban design is an attitude and approach based on the following vital principles: a respect for the genius and memory of the site, a search for the sustainability of the project, and, in terms of landscape itself, a search for optimisation of the legibility of the town.

**Respect for the genius and memory of the site** is achieved by turning the constraints of the topography to advantage, making the best use of pre-existing traces, and revealing partly-erased fragments. A site is never a «blank page» but rather an ancient «palimpsest»<sup>(1)</sup> on which the marks of human occupation have superposed over time.

**Search for the sustainability of the project** implies designing infrastructure and superstructure layouts according to the site's carrying capacity, i. e. the sensitivity of its natural environment, the richness of its cultural heritage...

**Making urban landscape «legible»** is achieved by making it possible to «instinctively» find one's way around. This can be facilitated by organising the street and road network into a hierarchy, by asserting its connecting nodes, by fitting it to the relief, and by establishing visual relationships with the most outstanding constructed or natural landmarks. It is also a matter of giving more identity to the different districts of a town by harmonising their character, marking their limits, and organising their common edges<sup>(2)</sup>.

**Designing a town thus implies the need to adapt its form to the scale of its geographical siting**, its conurbation and each of its districts using design techniques applied to the following three major urban planning issues:

- The ex nihilo foundation of a town in a rural space;
- The creation of a district on the town periphery;
- The redevelopment of a derelict urban district

## Designing towns in the open country

To design a town in the open country initially raises the issue of the master plan from which the town will be developed. First and foremost, it is a matter of siting it adequately, then of ensuring the coherence of its armature, the internal unity of its parts, their diversity and their relationship on the scale of the whole.

Although in an already heavily urbanised country like France an *ex nihilo* town is a thing of the past, the recent history of the Ile-de-France is marked by the creation of five new towns providing as many opportunities to undertake urban design on different scales. The results in terms of landscape quality did not always come up to original ex-

pectations, but there were nevertheless indisputable successes – Cergy-Pontoise for example. This is why – with hindsight — it seems worthwhile to examine certain of the more successful experiments and learn lessons which can be applied in a general way.

**Four main principles are apparent: fitting a town's master plan into its site in a sensitive manner; locating and designing public space according to its role in the urban armature; asserting the image of urban centre(s); reinforcing their internal identity of each district.**

### *Incorporate a town's master plan into its site in a sensitive manner*

Experience has shown that it is often more difficult to gently fit a layout on a site when the site in question is a plain or plateau (especially if its land has been regrouped) than if it is an uneven site with a certain obviousness and a fair amount of supporting points.

It is essential that the primary road grid making up the framework of the town be designed in such a way as to marry the deflection lines of the relief and reveal the surrounding landscape's strong points (e.g. by centring it on distant landmarks and making it follow hillside roads with vantage views, etc.). On the other hand, the design of house blocks should follow the most perceptible directions of the land pattern and be adjusted to pre-existing natural limits.

### *Site and design public spaces according to their role in the urban armature*

The setting up, proportioning and formalisation of public spaces is also essential to creative town planning and will be fundamental to the urban landscape of the future. It is important to consider their coherence in relation to the symbolic function and use they will fill in the future town. Public space are the nodes and links which provide the organisation and hierarchy of the urban system on all scales, making the landscape legible.

### *Assert the image of urban centre(s)*

The centre of a town occupies a special place in its landscape. Its image should be perceived instinctively.

(1) A parchment on which preceding texts were erased – not always totally – before a new text was written. Cf. above, «Designing with the landscape», note 2.

(2) According to Kevin Lynch, *The Image of the City*, Cambridge (Ma, USA), MIT Press, 1960.



Accordingly, it is highly preferable to develop it in sites which are clearly-defined focal points in terms of views, movement and traffic (a river island, lower part of a basin, promontory, etc.). The centre should be the focal point where major roads converge, where major civic facilities are concentrated (exploiting their monumental value by well proportioned public space), and where high densities and mixed uses are gathered.

### *Reinforce the identity of each district*

In order that the inhabitants of a town district may feel that they belong to some place, it is essential that the character of each district be individually recognised and adequately confirmed. A district's image is more clearly perceptible if certain themes (building volumetry, external features, materials and colours of street facades, types of vegetation, etc.) are repeated and unified within clearly defined limits. Districts can also be differentiated by interposing well proportioned public spaces in order to create clear transitions. Identification must, however, maintain harmony between districts by avoiding the incoherent juxtapositions that can be sometimes seen in a new town. It must be remembered that use and spontaneous evolution of the town also help differentiate districts.

## Designing a suburb on the town periphery

When a new district is grafted onto a town's fringe, the question of the links between the new district and the existing town arises; the interface between town and country is examined hereafter («Designing urban fringes»). Too many peripheral districts are presently being designed because of (often badly located) land opportunities. They are often totally isolated from the existing conurbation, like independently functioning and morphologically different complexes closed off from each other, rather than suburbs harmoniously extending the conurbation to which they are attached.

Over the last few decades, there has been a spectacular rise in the number of housing estates in many rural villages and small towns. Rows upon rows of houses are creating a new «American-style» landscape (the urban development zones of the 1970s), or the more shabby «chalandonettes» (named after Minister Chalandon, responsible for a programme of low-cost individual housing). On a different scale, this also applies to the medium-sized towns used in the poorly-integrated outer suburban priority development schemes of the 1960s and 1970s («ZUP»). It also applies to a large number of crudely grafted estates and badly located zones.

**In order to successfully graft a new district onto the periphery of a conurbation** (in addition to its siting — which obviously has an impact on the landscape), **four**

**mandatory principles should govern the district-conurbation relationship: seek the continuity** of main roads and pedestrian routes; **visually link the new district's public space** with the town's central elements and conserve viewing areas looking out over the countryside; **treat the limit between the city and the new district** as a broad seam; **reflect town and rural images** in the new district.

### *Seek the continuity of main roads and pedestrian routes*

To seek continuity implies, more specifically, to link up the new district's main arteries with the trunk roads leading in to the town centre and to the neighbouring districts, eliminate or decrease physical obstacles hindering the flow of traffic («bayonet» effects in particular), extend existing pedestrian walks to meet up with rural paths, etc.

### *Visually link the new district's public space with the town's central elements and conserve viewing areas looking out over the countryside*

In new districts, efforts must be made to insert new roads and establish squares and public gardens on sites which enable the skylines of the most symbolic landmarks of ancient centres (belltowers, town hall pinnacles, diverse towers, city walls, etc.).

Conversely, it is vital to restrict the height of new construction within the views radiating out from the centre and to retain open and minimally-constructed space in the vistas opening on to the countryside.

### *Treat the limit between the city and the new district as a broad seam*

The creation of a new peripheral district should also initiate work on the existing urban structure in order to avoid futile juxtaposition between the two. Efforts should be made in various parts on either side of the joining line to introduce varying depths of urban forms. They should be appropriate to both sides and not too contrasting in colour and volume. This approach is all the more justified since urban fringes are rarely clear-cut boundaries dividing town and country, but rather areas in which the two greatly overlap.

### *Reflect town and rural images in the new district*

An urban graft always takes better if the land patterns, architectonic elements and the variety of colours and plants, which best create visual identification with the existing town and its rural environment, are incorporated into the new district.

Attention to the urban and natural context first demands

respect for the integrity of the land pattern (whether or not regrouping has been carried out) and more and more frequently calls for the creation of a system of pre-greening using local varieties and arranged in a similar way (alignment, hedge, shrubbery, etc.)

## Redeveloping a derelict urban district

As major conurbations keep spreading out into the back-country, huge slices of urbanised land are subjected to the repercussions of economic development. At the gates to Paris, ideally located sites are directly hit by de-industrialisation. Their occupation by industry installed during previous urban development has left us with a landscape dotted with wastelands and buildings no longer adapted to the functions for which they were intended. There are several signs of this industrial past: loosely-knit road networks (because of the size of industrial sites), inadequate public space, no centre, inclusion of small, often deteriorated residential zones, canal and riverside buildings with the banks set up for industrial activity, direct contact with straggling rail networks cutting into the urban fabric.

To design the redevelopment of such bits and pieces means first to change their image, as was done in the Docklands development in London. It also means, most importantly, to replace a relatively strong urban structure with a new framework that meets substantially different needs, thus making it possible to restore a certain unity with neighbouring districts. This is a completely different logic from that of the gradual development of an existing urban fabric (see below «Building a Town upon a Town» and «Rehabilitating Districts») as this involves the design of a completely new part of the town upon the existing town.

A few of the problems associated with grafting as described above thus apply here: that especially of the seam and jointly constructed fore-parts, and the continuity of roads and traffic routes. It is also essential to confront the problems associated with the creation of centres and green space on the scale of these complexes and the redefinition of river banks and railroad complexes.

As de-industrialisation is a relatively recent phenomenon, there are only a few remaining examples of this type of operation in the Ile-de-France. Completed examples include the Front-de-Seine (Levallois-Perret), Rueil 2000 (Rueil-Malmaison) and Citroën-Cévennes (Paris) urban development zones (ZAC). Certain operations in the Paris East Plan (such as the Seine-Sud-Est) which can be considered as completed on the right bank (Bercy) and for the most part under way on the left bank. These operations were implemented more easily due to the fact that only one municipality was involved. This is not the case for the strategic redevelopment sectors Val-de-Seine, Seine-Amont and Plaine Saint-Denis which are much larger and spread over several

municipalities and which have to deal with a wide range of participating operators and the consequent problems of decision sharing.

**(Re)design initiatives aimed at restoring the coherence and framework of these urban sites, include three key actions: the restructuring of road networks and their organisation into a hierarchy; the creation of central areas and green space on the scale of the sector; the redesign of the interfaces with neighbouring districts.**

### *Restructure road networks and organise them into a hierarchy*

To recreate a more regular network, better integrated into the rest of the city, it is often necessary :

- to add new roads through the larger housing complexes in order to obtain a district more classically urban in its scale;
- to restore the continuity of roads leading to the centres of neighbouring districts;
- to upgrade major trunk roads by planting roadside trees, adding well designed street furniture and by widening footpaths.

### *Create central areas and green space on the scale of the sector*

To develop centres of the calibre which will enable these vast areas to be structured, real estate development operations must be coordinated and concentrated and public transport and roads around the major nodes of the projected urban framework must be upgraded .

In order to create public parks sufficiently large to play their role, advantage must be taken of transformations to major land area and contact restored with waterways in such a way as to stretch the visual space of these green spaces and integrate them with other green links along the banks.

### *Redesign the interfaces with neighbouring districts.*

Breaks isolating the sector under development from the neighbouring districts can be eradicated or reduced by a new bridge, a cover over a trenched high-speed road (such as in Rueil 2000), or, less frequently, a slab built over a rail junction (as is the case for the development zone on the left bank of the river Seine in Paris).



# Building the town upon the town



**T**owns change. Like all living organisms, they grow and expand, evolve and adapt, grow old and die. But, district by district, they may become young again. In the parts that are dying, a new town can be designed over the old town by radically restructuring it<sup>(1)</sup>. Where they are ageing, their structure may be restored, public space and facades given a «facelift»<sup>(2)</sup>. Where they are still alive, evolving day by day, an attempt can be made to ensure their harmonious growth by revitalising their appearance and their landscape as they are progressively developed, leaving no gaping wounds, no unwelcome outgrowths.

This progressive transformation is the task of the urban designers who intervene daily in the town. Their job is to gradually weave in a new town on top of the old one. Their work falls into two main areas of activity:

- the development of constructed forms by integrating the new into the old; by supervising alterations to buildings and transformations of industrial buildings and workshops into office or residential blocks;
- the development of public space, which remains the element underlying the town's structure and the place of projects which, within deadlines compatible with a given political term of office, will leave a substantial mark on the town.

**In the town, solids and hollows are indis-sociable and are combined in different forms** (vistas, layout, the contour limits of buildings) **and according to the site and the topography**. Sociological and economic values also make an essential contribution to the urban landscape, from the viewpoint of the predominating activity marking the landscape (or downgrading it through the profusion of street furniture and signs) and via the image presented by the town: wealth, poverty... We will examine below the two main types of complementary active measures which must be applied, on the one hand, to construction, and on the other hand, to public space.

## Integrating constructed forms into the urban landscape

The volume of buildings stems from a series of rules and practices implemented during different periods. Until the 19th century, it was mainly the economic, geographic, social and technological conditions which engendered urban forms according to unwritten laws which came more from established practices than from regulations. The constraints of building methods ensured that towns had a certain homogeneity of urban forms (heights and building lines on streets or housing complexes for example).

Regulations were introduced gradually and fell into two categories. The first, which governed problems of common ownership, building regulations and relationships between owners, were — for the most part — written into the common law (*code civil*). The second type of regulation — referred to as «highway regulations» (*règlements de grande voirie*) — governed the relationship of land parcels to common space, building lines, levelling and the projection and layout of facades... The 19th century left its mark in this area.

Since the end of the 19th century, and more so since the middle of the 20th century, many changes have appeared in urban forms: changes to building heights, building lines, continuity between common owners... Other than the influence of fashion and the development of building concepts (and, in particular, Le Corbusier and the Athens Charter), changes resulted from, among other determining factors, new technological methods (lifts, reinforced concrete, tools, cranes, etc.), real estate investment conditions and the new modes of transport. The size of operations, the breaking up of housing complexes and the emergence of the motor car all contributed to this volumetric change.

(1) See above «Designing Town».

(2) See below «Rehabilitating Districts».

Accordingly, **development work on buildings can be differentiated according to the urban structure it affects — on the one hand, «heritage town» (town containing outstanding edifices and monuments, but also to its established urban structure) and, on the other hand, «ordinary» town.**

### *Recognising and developing established urban structures in the «heritage» town*

**Outstanding edifices and monuments**, as soon as they are recognised, **are generally covered by historical and cultural heritage conservation policies.** It is important to take their density and distribution into account in a regional landscape approach, but these aspects do not require additional proposals in terms of their conservation or development, although those which have not been subjected to these measures must be recognised (it was only a short time ago that industrial heritage was accorded true recognition).

**Established urban structures are more interesting for their homogenous character than for the quality of their buildings, which is rarely exceptional.** Established urban structures include, for example, recognised urban complexes such as the Faubourg Saint-Antoine district and la Butte-aux-Cailles in Paris, the Haussmannian districts, the old centres of many towns and rural villages, high-quality residential complexes, garden cities (la Butte Rouge in Châtenay-Malabry, Suresnes, Le Pré-Saint-Gervais), and built-up sites offering outstanding vistas or conforming to a specified layout.

These urban structures and, in particular, single-family housing estates, can include a substantially large amount of free space. Certain of them could organise their parcel structures in such a way as to rate classification as authentic monuments, as in Montreuil and Thomery, whose walls (peach and grape -covered) marking their boundaries are major features on the site. In addition to these outstanding examples, certain structures have given rise to forms and networks, if not practices, which should be conserved: existing pathways in the midst of narrow housing parcels, providing breaks in vast street blocks, shared courtyards extending public space. These are frequently questioned, especially when they are parallel to the street, as in Brie. Beyond a «heritage» or «ordinary» town, this is rather a reference to the «heritage of an ordinary town».

The arsenal of laws instituted many years ago led to the establishment of conservation measures covering mainly the historical heritage. Apart from this, there are structures of interest which are not always recognised and rarely conserved. In the Ile-de-France, only a few historical districts are protected because of their conserved sectors: Paris' 7th arrondissement, the Marais, Versailles, Saint-Germain (see map of protected heritage sites in the chapter

«Designing with the landscape»). The Parisian land use plan (POS) protects the layout of facades, but in the Saint-Lazare-Opéra business district, a number of restoration projects have saved facades but nothing else. This means that not only the architectural heritage invisible from the street is lost, but also that the urban landscape is affected insofar that the facades become nothing but ornamentation, thus losing their meaning. These conservation measures could thus be extended to include established complexes which do not have outstanding historical value. To this end, the Architectural, Urban and Landscape Protected Zones (ZPPAUP) offer an interesting solution.

### *Introducing into the land use plans a vision of heritage which does not impede development*

Land use plans (POS) in dense towns are still evolving. Initially, extensive renovation projects were curbed. Later, greater consideration was given to the existing constructed context. Today, attempts are being made to conserve the specificity of certain structures, on increasingly larger surface areas, including entire districts (as is the exemplary case of the 85 hectares of Faubourg Saint-Antoine in Paris). In the light of «neo-Haussmannism», the fabric of urban blocks seems to be spilling over and, in a way, appears to have stopped expanding. The regulations — too generalised to best conserve the character and diversity of the constructed fabric of certain districts — now need to be revised.

Four key objectives are usually put forward when considering this approach: the maintenance of functional diversity, the conservation and development of vegetation, improved integration of new constructions, and the conservation of elements marking the constructed landscape and its history (the latter is a more recent approach).

This provides a glimpse of what is possible: develop the land use plan (POS) to better take into account constructed volumetrics and protect smaller areas of private free space; give priority consideration to the character of streets and land parcel content, all forms of vegetation in the town, the architecture and history of buildings (including courtyards, passageways and porches leading onto the street), then extend consideration to the conservation of certain buildings, courtyards and planted space. This should be followed up by regulations covering activities in the town and governing, for example, ground-floor occupation...

Further increasingly vital initiatives should be simultaneously encouraged to accompany the POS regulations relating to constructed heritage: the development of public space and circulation; incentives to maintain and restore activities integrated into the urban fabric, reinstatement of former heritage with, fairly frequently, recourse to programmed operations for housing improvement — OPAH (cf. «Rehabilitating Districts»).



The problem involves the extension of the approach and its batch of exhaustive analyses (parcel, fragment of parcel) to huge complexes such as a district. The risk is to create «museum districts». The challenge is to introduce into the POS a vision of heritage which does not impede development.

### *first thinking in terms of urban form in the «ordinary» town*

Urban form is one of the most apparent challenges in any urban project. In zoning regulation terms, «zoning» and «regulation» are just another way of saying «decisions taken». The formal approach, covering both constructed and public space (the town framework), combined with a detailed knowledge of the way in which an urban fabric can change, should be a more systematic preliminary and a reference for decision making. This applies as much, if not more, in the «ordinary» town than in the «heritage» town where references are more obvious.

**In most cases, it is necessary to conserve the harmony of those urban structures described in this paper as «ordinary», rather than to conserve specific elements. In attached-housing districts, it is the constructed volumes which mark the landscape. In single-familyhousing districts, it is other elements such as fences and walls, recesses in the roadway and roof orientation which can be determining factors.**

The advances in construction methods, investment conditions and modes of transport have, as we saw above, brought about major imbalances in urban forms, aggravated since the beginning of the second half of this century. Urban regulation became necessary to channel this anarchic development. It has in fact become the main tool to shape the urban landscape with all its well-known restrictions. The reading of an urban landscape enables us to identify the different periods of regulation through the forms that were created during each of these periods. It is frequently the continuous succession of urban regulations which are blamed for breaks in the urban landscape. We will consider two of the urban structures with the region's most marked characteristics: on the one hand, low-rise attached-housing construction (the older suburban centres, old inner suburbs) and, more especially, high-rise construction (dense parts of the town — especially those of a «Haussmannian» character in the broadest sense of the term, which includes «post-Haussmannian» structures); and, on the other hand, single-family housing structures.

### *Avoiding or healing the breaks in attached urban structures*

In attached construction, particularly in dense parts of the towns with frequently dominant «Haussmannian» characte-

ristics, breaks in the three following essential components of construction volumetry must be avoided:

- the alignment of facades, in general on the limits of parcels bordering on public roads;
- the continuity of attached buildings;
- the height and contour limits of buildings under the one «canopy».

**When alignment is not obligatory, breaks in alignment are created by the recessing necessary to attain authorised maximum heights.** These recesses create redans in the road and uncover blind gables. In certain cases, alignment must be made obligatory.

**Breaks in continuity appear when attached construction is not obligatory.** They break up the traditional street landscape with its continuity of facades (commercial premises in particular). They create interstitial space which is often poorly developed. When original continuity exists, they create blind gables on the remaining old buildings. But although the regulations are not in any way flexible, the converse risk is to «concrete in» the street. The «street corridor» is presently being challenged and being replaced — as happens recurrently — by freer compositions. While this approach has its merits (but nevertheless difficult to control) in overall operations — such as the Masséna district in the Paris Seine-Rive-Gauche development zone (ZAC) —, it would appear risky to adopt it with the land use plan (POS) as the sole implementation tool since these regulations are restricted to authorising or prohibiting (and cannot prohibit that which is authorised or vice-versa). The risk is to finish up with a destructured town, as occurred when the Athens Charter was too hastily applied.

**Breaks in height (breaks in the «canopy») mainly become apparent when a new regulation authorises a height greater than the former one, or when a traditional district experiences new growth.** Severe differences in height along a roadway create breaks in a town's overall skyline.

Quite frequently, these three types of break — alignment, continuity, height — obviously can happen at the same time and transform the urban landscape, and many towns are presently experiencing this phenomenon. This is why special attention must be given to the drawing up of regulations covering volumetry in urban development documents, of which the land use plans (POS) are the most important.

In Paris, alignment, continuity and height are among the major qualities of the townscape. Breaks in alignment, authorised in the 1960s and 1970s, have disappeared. A number of new alignment easements, which introduced breaks, have been abandoned in the recent POS. Breaks in continuity are restricted by land costs, which lead to avoiding interstitial space. And as far as heights are concerned, the Paris skyline, with a canopy remarkably parallel to the natural terrain, 20 to 25 metres higher, was locally modified (Front de Seine, Belleville, Italie...), but is still legible and now better protected. In the early 1990s, the approach was

improved by the establishment of land use plans at the scale of districts: Butte-aux-Cailles, then rue Montorgueil (1990-1991), Champs-Élysées (1990-1992), the Mouffetard and Montmartre districts (1992-1995), and faubourg Saint-Antoine (a much larger and complex project, covering 85 hectares, is in progress).

The situation is often different in urban structures which are dense but not so well established as the rest of the conurbation: alignment and continuity — less complete to start with — are not often respected. The urban canopies, much lower, are particularly threatened by breaks in height.

It would be advisable to propose solutions which do not break up the urban fabric and, where necessary, help it to heal without hampering the potential for change. Height and size must be adapted to the character of the street and its alignment. The restoration of building lines is to be encouraged: measures prohibiting blind gables and promoting intermediary buildings between those already aligned and those standing back have already proved their worth. Good evidence of this is the recent improvements to the existing Levallois-Perret structure.

### *Adapting buildings and enhancing public space in single-family housing estates*

The regional context embracing the development of single-family housing estates has changed in a variety of ways since the 1950s. Single-family housing zones, originally located away from urban centres, now benefit from transport services and major urban facilities while retaining a much more agreeable character than the large housing complexes. Their environments have also changed with strips of farmland having been filled with houses, facilities and commercial activities. Initially reduced almost to nothing, facilities in suburban single-family housing estates have been gradually upgraded. Resident populations have diversified over the last twenty years; the average age has dropped and they now include more advantaged socio-professional categories. These changes have led to continually increasing pressure on single-family residential structures to meet a heavy demand for individual houses offering more living space than

apartment blocks. And the gardens — even small ones — which are planted generate additional fresh air for the Parisian metropolitan area.

**Single-family housing environments are the victim of conflicting development trends: conservative measures intend to stabilise and protect them, but hold up the modernisation of structures and housing, and frequently their population growth.** Over the last thirty or forty years, apartment blocks and other poorly integrated buildings have been constructed according to a different logic to that of the original land division, their volumes in discord with their environments. This has resulted in the establishment of conservative and often too rigid measures.

Is it possible to take overall action... and how? A number of municipalities, in areas where there is already single-family housing on a large scale and where the development of single-family housing structures are envisaged, are asking themselves which course to follow. One direction could be to combine regulatory initiatives and operations in the context of overall planning, albeit on a modest scale, but with a clear conscience concerning the values to be conserved: first and foremost comes the original character of the urban form and its landscape.

**Four main objectives can thus be proposed** to lead the way to steady, more favourable development: sustained efforts to upgrade existing constructions, changes to land division regulations, the integration of new buildings and, most importantly, the organisation of public space.

**Encourage the development and improvement of existing buildings:** of all the different structures, single-family residential space is the most open to flexibility; its adaptability to the needs of residents is a potential it would be advisable to guard. The original character of the forms this can lead to has been widely examined and recognised.

**Make provision for and organise changes to land division regulations:** land division measures constrain construction. Regulations would benefit from further thinking on the type of buildings to be constructed by defining the surface area on which they can be built and the adaptability of their contour limits to the structure.



**Respect the character of environments when integrating new houses:** single-family houses are built to conform with deeply rooted cultural models and offer outstanding continuity of forms because of their flexibility and potential for adaptability and expression.

«A single-family house, like all habitable space, is appropriated through the «marks» made on it (...). Residential space offers more freedom of choice, more potential than the apartment (...) in which, especially over recent years, functionality saturates the space»<sup>(3)</sup>.

The space is «marked» by the resident at two levels:

- at territory level, by the fence (which acts more as a boundary between inside and outside than as protection of privacy);
- at house (the building) and garden levels, media for personal expression.

The potential to evolve, as evidenced by the many requests to undertake transformations, is one of the private home's most basic values and worthy of conservation. The scale and volume of construction together make up one of the characteristics of the single-family housing structure, a feature essential to a balanced urban landscape. Respect for this landscape calls for the promotion of neighbouring urban forms while allowing the urban structure to densify. These properties are offered by «town-style» houses, the attached dwellings found in denser urban areas. Moreover, town-style houses offer the same potential as separated houses in terms of adaptation, appropriation and expression.

Because of conservative practices in the traditional urban structure, the type of town-style house currently on offer are being placed mainly in the new towns. The following characteristics differentiate them from early 20th century houses:

- Density of approximately 40 houses per hectare;
- Length of facade: 6.5 to 8.5 metres, depending on whether or not a garage is adjoined;
- Kitchen facing the street;
- 2 or 3 levels plus attic;
- Possibility to develop a front garden (sometimes simply in window boxes);
- Potentiality of style and construction system.

Their integration into a single-family housing estate structure will require consideration of the usually selected regulatory measures including, of course, the COS (planning density coefficient — a net surface area of 160 sqm per individual residence, which raises planning density to more than usually practised), and also Art.5 (land characteristics) and Art.7 (siting of buildings in relation to property boundaries) of the land use plan (POS).

**Improve the organisation of public space:** this is presented in more detail below. Two aspects are stressed: the first is that the more housing estates are fully integrated into our towns, the more the need to organise roadways into a hierarchy. The second is that the development

of public space (see below «Rehabilitating Districts») is a powerful factor in the harmonising of landscapes in architecturally diverse structures.

## Giving free space a structural quality

The so called «free» space is a space without constructed volume. We also speak of an «open» space as being the contrary of a space visually and physically closed-off by construction. But non-constructed space can be densely planted (thus not providing clearings affording a view), or enclosed (thus inaccessible). In urban environments, this refers to public space, even though it occasionally leads onto more extensive private open space (with gardens in particular). Natural space (which is only relatively so in an urban environment) is part of free space, but a free space can also include roadways (usually heavily mineralised).

Free space is not defined solely as opposed to built-up volume; it is an entity in its own right. It has its own role to play in the structuring of the urban landscape. While it cannot be thought of only as either an open space, a public space, or — to an even lesser extent — a natural space, free space has most of its structural value where it is open and public (and to a certain degree natural).

### *Treating public space as a comprehensive whole*

The development of «empty space» in a town contributes just as much to the urban landscape as the development of constructed volumes. The layouts of avenues, vistas, malls, and squares are among the main assets characterising a town's landscape. Parks, gardens, roadside plantations, canal and river banks are all supporting points around which this network can be set up. These networks are as important in terms of their usage as they are as a contribution to the landscape. The development of roadways, pedestrian walks, school entrances and access to public facilities is, although less prestigious, just as decisive for the physiognomy of districts.

It is in the suburbs and peripheral outlying environments that this type of action has more effect on the structuring of the urban fabric and its landscape. It is now proven that the quality of the form of improvements substantially affects the evolution of the function and use of public space as well as the spontaneous rehabilitation of local construction — housing and commercial premises in particular<sup>(4)</sup>. The landscape quality of a public space is an effective factor in the revitalisation of bordering structures, particularly in

(3) Quoted from H. and M.-G. Raymond, N. and A. Haumont, *L'habitat pavillonnaire*. Paris, Centre de recherches urbaines, 1966 and, for the subsequent lines, C. David (from a study by F. Dugény and A.-M. Roméra), «La banlieue pavillons hauts», *Les Cahiers de l'IAURIF* (IAURIF Journal), No.76, June 1985, pages 46-47.

(4) Jean-François Vivien, «La rue et la ville. L'amélioration de la voirie, facteur de dynamique urbaine», *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 86, July 1988.

suburbs where it can unite and structure otherwise disparate construction.

### *Giving back urban free space the variety of its functions*

In free space in town, public space in particular, there is a concentration of signs which reveals the many functions of the town and the layers of history it has accumulated. Facades of buildings bordering on this space express (or conceal) what is behind them, or sometimes the period in which they were constructed. Signs and shop windows indicate a building's purpose. In a single-family housing estate, front gardens and enclosures are also revealing elements.

Public space is itself coded. The introduction of the motor car led to further marking of the individual's place in public space through street vocabulary: footpaths, borders, parking spaces (for which, increasingly, the user must pay in town centres), benches, roadside tree plantations, lamp-posts.

The continuity of road signs has become one of the significant factors of fluidity between town centres and the districts directly surrounding them. Routes leading in to the centre or the periphery consistently have points which mark them as belonging to the public space of the town. Gradually added to or removed from these are other signs whose number and diversity (which can lead to confusion) place an individual in relation to the centre, even where there is neither increase nor reduction in the flow of pedestrian or vehicular traffic.

The boundaries between public and non-public domains are by far the most clearly marked in town centres, its facades aligned and private spaces almost invisible (or incidentally visible as if by stolen glimpse, especially the former, now rarely used, carriage entrances). Commercial premises — the only public to private transit spaces, but with a clearly-defined status and the possibility to control without ambiguity — can encroach on the street (café terraces, stalls...) or allow it to penetrate beyond the facade (transparent thus appealing).

The single-family housing estates structure has its own rules, and public space is not diminished by free space: fences — restrictive but, more importantly, expressive — are omnipresent. It is not the same for high-density housing schemes in which public space is

diluted, boundaries are ambiguous — particularly between public, private, and non-public communal space. In these types of space, boundaries must be marked, signs re-allocated (to privatise spaces around buildings, demarcate parking lots, facility buildings), and any historical traces (even if it is rarely the case) reinstated (cf. below «Rehabilitating districts»).

### *Networking green spaces*

Urban free space is extremely important on all scales, from regional to district scale. On whichever scale, it is important that free space be incorporated into networks characterised by their even distribution, hierarchical organisation, and varying aspects of continuity. Networking is quite normal in the case of roadways, but has been developed mainly to benefit the motor car. Networks must be installed or reinstated for pedestrians and cyclists via «green networks» or «alternative routes». The networking of green spaces represents a basic challenge (from both a landscape and ecological point of view) which has been far too long neglected in an approach which considers green space just as a facility. This is, apart from the «greening» aspects, one of the basic principles of the «Green Plans», either on regional, municipality or municipality grouping scale.

**On a municipal scale, communal «Green plans» enable prominence to be given to public space networks of all kinds** — vegetable or inorganic. They are used as guidelines for community initiatives to develop public space and the overall town.

**On a regional scale, the «Regional Green Plan» proposes a series of networks: a green system in the central sector of the metropolitan area, a surrounding regional green belt, valleys and green linkups throughout the whole region.**

**Green systems in the central sector of the metropolitan area** is formed by a network of parks, public gardens and green linkups. Existing parks and gardens are unevenly spread in conurbations: new parks must be added, especially in deprived zones. Green linkups (abundantly planted ways reserved for pedestrians and cyclists) are still very rare: Ourcq Canal, green strips on TGV lines (in Paris South on the TGV Atlantique line, in Paris South-East currently being installed), the planted walkway



on the old Bastille railway line in Paris... The aqueducts feeding Paris (Avre to the West, Vanne and Loing to the South, Dhuis to the East), represent — with their continuous public land from the country to the entries to Paris — a potential to be developed.

A major link in the metropolitan green system is the «Parisian Green Belt», projected onto the ancient fortification zone in the 1920s. Although drastically reduced, sections of it still exist because of the breaches in the built structure, highlighting the 1930s red brick urban fronting and the gates of Paris. This paradoxical space between Paris and the suburbs has been the object of a number of studies and projects aimed at softening the break made by the ring road (and also the 80 urban roads and highways and 20 rail networks cutting through it in the other direction). This has been done in order to reunite sites which could benefit from the ring road's potential by organising it as the central ring of the conurbation, directly linked with strategic sectors such as the Val de Seine, the Plaine Saint-Denis and the Seine Amont<sup>(5)</sup>. Beyond the metropolitan area's green system, between 10 and 30 km from the centre of Paris, the «Regional Green Belt» scheme (initiated 20 years ago by the Region and drawn up in the Regional Green Plan) proposes a network based on the protection and development of the substantial green heritage still existing in the suburbs. This heritage is partly recognised (large outlying forest masses such as Saint-Germain, Meudon, Sénart, and Notre-Dame: classical parks such as Saint-Cloud and Sceaux, modern parks such as la Courneuve and les Saussets; private and public gardens). It is threatened as long as it is only considered as residual space: woods, closed-in farming land, wasteland. Protection by acquisition or by regulations, the opening of land to the public (made possible by acquisition or by contract with a private owner), and landscaping works are the principal prerequisites to setting up this green belt. Its ring of wooded spaces would, by contrast, become a feature marking entrance to the conurbation.

### *Re-establishing the town's contact with its rivers*

**Large and small rivers, their banks, their surroundings and their valleys, are all elements which structure local and**

**regional landscapes** (see chapter «Using relief and views to advantage»). In a metropolitan area, they represent free space of major importance, endowed with strong symbolic value, frequently providing wide vistas, presenting nature through water, fauna and the plant life on its banks. Whereas many waterside cities turn their back on their rivers or only use them for their functional value, Paris is one of the world's cities which has highlighted its relationship with its river, and which continues to do so via the major projects it initiates (Bercy, Citroën, Tolbiac...). The Seine's quays and buildings which form its background are visited by millions of tourists and are on Unesco's list of world heritage. In the suburbs, the banks of the Seine, the Marne and the Oise are traditionally used as leisure spots in pleasant surroundings, celebrated in French impressionist paintings and cinema.

In the Parisian metropolitan area and in many other urban areas of the Ile-de-France, industrial facilities stretch along the navigable waterways. These waterways make up the preferred transport routes for raw and combustible materials needed by their industrial installations. This phenomenon was accentuated by the introduction of railways. Many of them followed the valleys and created additional breaches between the towns and their waterways. Smaller rivers have been canalised or penstocked and have disappeared from the urban landscape of which they were an important feature. The transformation of river banks into roadways for traffic organisation and the sometimes harsh way of handling flood protection finalised the divorce between town and river.

**Re-establishing this lost contact calls for determined action.** The implementation of these initiatives requires a great deal of forethought as to what needs developing in a «natural» way and what must be done in «urban» style, depending on whether work involves river sections, the presence of islands or cut-offs, and according to the vocation of nearby districts.

Riverside landscapes are never independent of their urban context: town centres, residential zones, commercial zones generally require different approaches. One constant affecting both function and landscape must, however, be

(5) Cf. «Autour du périphérique : l'anneau central de l'agglomération», *Les Cahiers de l'AURIF* (AURIF Journal), No. 102, November 1992, pages 21-36.

respected, i.e. a certain continuity must be assured along the banks of a river and its footpaths. Landscape work must take into account overall landscape or urban entities — beyond administrative boundaries, if necessary — and efforts must be made to ensure continuity between each entity. This is the only way that modifications can be coherent. Urban or natural, the development of riverbanks must be carefully executed, avoiding the harshness of ripraps or sheet-pile walls, too rigid for a natural environment and too crude for urban environment. Modifications would also take into account parking lots for houseboats, which favour backwaters. These sections of rivers are particularly suited to a natural development of the banks, which would clash with the tendency of houseboat owners to appropriate the banks.

A more urban or a more natural approach can thus be adopted when developing riverbanks. On navigable waterways, the more natural approach must take into account erosion problems caused by the wake of boats or rises in water level due to flooding, to which complex layouts do not adapt (the reverse is true for the banks of ponds resulting from sand and gravel excavation). Planting should be adapted to the nature of the site in terms of the varieties chosen and their soil-retention potential. Pitch-walls and embankments should be used for mineralised sections, integrating high-stemmed vegetation, in the same way as the quays in Paris, with gardens developed wherever there is sufficient width, and which are now considered a model for this type of work. Particular care must be taken with bridgeheads which, as they always form a nodal point or an entry to a town or part of a town, must be developed accordingly. Simple modification is often all that is required (alignment of trees in parallel with the waterway, development of banks and bridge abutments, continuity of riverside pathways).

Riverside roads are more complex and call for the integration of landscape approaches well upstream in a project. In addition to the impact they have on the banks themselves (and, in particular, on what remains of the adjacent riverside land), they represent the main rifts between town and waterway. Without imagining the possibility of them being systematically covered over, different ways of dealing with them can be envisaged according to the

type of road, the riverside urban system, and the scale of intervention (part of a district, district, large urban sector...):

- The creation of terraces on the model of the Tuileries in Paris, or the Château de Pomponne in the Seine-et-Marne Department, and similar to the development undertaken alongside the new Parc de Bercy (but not the Front de Seine in Paris);
- Complex modifications at certain points where necessary, such as in front of the Parc Citroën in Paris (coverage of riverside roads, the passage under the railway line, which connects the park with the riverside);
- Development which will dissuade motorists to use riverside roads as a «diversion» in their daily journeys and which will transform them into «30 km/h» type routes;
- Integration of flood control equipments as part of quay landscape development (which could be undertaken when riverside traffic flow is at its minimum);
- The creation of alternative routes specially adapted to the topography of riverside sites and the virtual lack of intersections on one side of the road...

All these projects should be studied in fine detail as to how they relate to neighbouring districts. Adjoining urban spaces, including streets and larger, non-constructed zones (residential complex parking, ports, etc.), should lead on to the riversides and be developed to form a green, «comb-like» structure — thus also contributing to the greening of the overall urban structure.

Small canalised or penstocked rivers and streams create specific problems associated with their narrowness, their land status (sometimes private) and the major preliminary purification work (the «clean river» schemes are vital not only to cleaning up major rivers but also to small rivers which, because of their reduced volume, do not absorb pollution so readily). The long term objective should be to bring the waterways back into the open air, which would first mean diverting urban wastewater and rain water to a sewerage network so that the rivers and streams would only be fed from upstream sources (rural or forest areas in most cases — e. g. the Bièvre, or the streams flowing down from the Montmorency forest). The problems associated with the implementation of these moves should not be a reason to abandon them... In the short term however, the



concealed watercourse may be revealed using an appropriate landscape vocabulary (the garden of a residential building was laid out along the banks of the Bièvre in Gentilly by Alexandre Chemetoff) and, where possible, continuous — or at least sequential and linked to public space — pedestrian walkways.

### *Bringing more nature into towns*

One of the most frequent demands by city dwellers is for an increase in the presence of nature. But when it comes to clarifying the contents of this request, conceptions vary. What, precisely, is nature? It is generally understood as being the contrary of culture: nature encompasses more or less everything that is not man-made. It is a relative notion: whereas cultivated space and natural space are fundamentally (as well as etymologically) different, both terms are associated when studying a heavily urbanised region such as Ile-de-France. Its highly maintained peri-urban forest areas are hardly natural when compared to «primary» forests, but, nevertheless, they indisputably represent a small portion of nature where they are located.

Nature cannot be reduced to vegetation alone, its most visible form in a town. It encompasses the climate, substrata (soil and subsoil) and living creatures — all this exists independently of man, even though man can modify them. In the more restricted sense of the word, nature embraces all living creatures — including animals — other than man, and all the more as they are less domesticated.

The notion of nature is different from that of environment, with which it tends to be confused. The presence of nature is certainly considered as enhancing environments, but some urban settings considered as being of ultra high quality may be extremely artificial — the case for the majority of very old urban centres. Places also exist in which the presence of nature is considered excessive.

Between these two definitions — the one too simplistic (vegetation) and the other too broad (environment) — the urban ecological approach enables the notion of nature to be understood in all its complexity, and in a way which meets the expectations of a town's inhabitants. Ecology takes into account all natural phenomena (living creatures and their environment); it gives systems and relationships greater

importance than objects; it establishes criteria which are pertinent to the quality of systems: biomass, biodiversity (the number of a given species, the existence of rare species), and stability (balance)... While a certain ecological ideology sees nature as excluding man, if well understood, ecology proves highly fertile in the context of development. Accordingly, urban ecology is a tool for analysing the town as a living system and proposes solutions to make this system more balanced and diversified<sup>(6)</sup>.

In practice, despite the fact that nature must not be confused with vegetation, nature is mostly found in planted spaces. Vegetation, as well as being the most visible of natural forms, also reveals the further, more comprehensive ecosystems with which it is associated. To bring more nature into town is thus first to increase the number of planted spaces and to interrelate them (as developed above in «Networking green spaces»).

It is obvious that it is in public space that local authorities can take the most effective action. And, as there is only limited land available for new parks, they will have more room to manoeuvre in public spaces already allocated to other uses. There is a great deal of potential on a large number of sites for the planting of trees on roadsides and town squares not already planted. It is certainly more expensive to plant a tree in a well-frequented inorganic surface than in a park (bitumen to be removed and replaced, a larger hole to be dug and more earth to be transported, a stronger tree required, its protection, occasionally a pipe or cable network to be moved...) but the extra cost is less than the purchasing cost of the area in question. In an urban environment where space is hard to find and land is expensive, the acquisition of land for green space is costly, whereas planting on footpaths, squares, etc. does not require acquisition and uses up a minimum of space.

Apart from public space, the main remaining space, with a constant density, is covered by the actual buildings themselves. And since the availability and «appropriation» of nature is as (if not more) important than its quantity, clim-

(6) Cf R. Delavigne, «Ville-campagne : une opposition dépassée», *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 95, January 1991. Cf also the research programs of the Ministries for Development (*Plan Urbain*) and for Environment, «La ville au risque de l'écologie» (1992-93) and «La ville, la densité, la nature» (1994-96), participating in, in all, thirty highly diversified projects, in particular *Densité, végétation, forme urbaine dans l'agglomération parisienne* (P.-M. Tricaud, IAURIF, 1997), from which followed this exposition. Cf also «La ville, quand la nature s'en mêle» (*Ateliers d'été de Cergy-Pontoise*, 1994) and *La nature dans la ville. Annales de la recherche urbaine*, No. 72, 1996

bing plants and planted terraced are a solution to the demand. Terraces have proved to be very popular, not only for the residents of well-to-do districts, but also in the more «ordinary» districts, where innovatory buildings can be seen, with authentic terraces on each floor supporting heavy layers of earth — Jean Renaudie's «star» buildings in Ivry and Givors (Rhône), the «pyramids» of the new town of Evry. Climbing plants, creepers, and xerophytes (adapted to a dry environment, such as the succulents) are used to create hanging gardens on thin layers of earth. These techniques are being increasingly used during construction and can be applied to redevelop roof patios on inorganic surfaces.

Introducing more nature also means to make planted spaces more natural, thus more spontaneous and diversified. An increasing number of landscape architects are being inspired by self-sowing plants — the «*jardin en mouvement*» (garden in movement) of the Parc Citroën designed by Gilles Clément, in the «*jardins inattendus*» (unexpected gardens) of the Ile Saint-Germain at Issy by Yves Deshayes, and in the «*jardin naturel*» (natural garden) in the 20th arrondissement of Paris by Agnès Bochet, Laurent Gérard and Virginie Formigé, rehabilitated weeds become elements of design. The natural also inspires green space management services as it saves them money on maintenance. These services are making increasing use of «differentiated» and «harmonic» management (allowing a controlled spontaneity of nature) on vast suburban green spaces such as recreational parks, as well as on certain more-frequented spaces. In the valley of the Orge at Saint-Geneviève-des-Bois (developed by the staff of J.-L. Bernard at the Downstream Orge Intermunicipal Association), the grassland of le Perray is partly mowed for heavy frequentation and partly cut like a rustic meadow. A little further off, a pontoon walkway passes over a marsh, offering an image of wilderness while requiring very little maintenance.

Giving more room to nature also involves restoring contact between a town and its waterways (cf. above) and contact with the earth. It also involves re-establishing contact between water and earth via permeable surfaces through which water can filter. Inspired by what is happening in Germany in regard to housing complexes, the land use plan (POS) of Paris

now stipulate that any redevelopment must maintain at least half the originally-existing open surface area, or that provision be made for a 2 metre deep layer of earth above basement level. In a similar manner, the urban project for Plaine-Saint-Denis provides for open strips to be planted along certain roads to collect rainwater runoff. Rainwater recovery systems (to recuperate water before infiltration or before it is returned to the natural environment) can be used to great advantage in development projects to provide a rich diversity of ambiances: at Marne-la-Vallée, a number of ornamental lakes are used to absorb polluted matter from rainwater. Their reflecting water, the small groves of willows and reed beds combine to enhance the town environment.



# Rehabilitating districts



**T**hese days, development of the existing urban fabric is conducted on a more discrete basis than it was during the 30 years of reconstruction and development following the second World War, but does nevertheless represent a progressive transformation of the landscape of towns and villages. Certainly no more blocks of flats are being erected amongst the houses, nor are the old town centres being cleared and replaced by towers and long blocks. One no longer sees clearance programmes in the historic districts, or renovation projects with their associated architecture. The procedures adopted are much more subtle, and today's operations show much greater respect (except where their symbolic value requires a break in the urban fabric). Similarly, the mechanisms are much more complex and many more people from the city are involved.

So what happens when the town is not rebuilt upon the town, when one fabric is not replaced by another? The districts age, like their population. Dwellings in the centres empty as family structures change, the most underprivileged are concentrated in the towers and long blocks, while on the housing estates the generations succeed one another. Advertising covers the walls and the footpaths.

And where is the landscape in all this? It too gradually evolves, in one direction or another. Either it slowly degrades, or is gradually rejuvenated as buildings are cleaned, and trees grow, until some overall operation gives some impetus to its development. For anyone who knew Paris before the Malraux Act (1962), it is possible to see the difference between the city of blackened buildings shown in black and white photographs and the city of today, and also to realise how long the process took.

Thus there is no doubt that dynamic development requires comprehensive projects, whether these concern city centres or suburbs. We use the term comprehensive to mean that the projects are sufficiently broad in compass to affect

a significant part of the town; that they may also embrace a number of complementary actions (affecting well-being, buildings, facilities and public areas), this being the only way of generating a real impact on the mobilisation of a population such that it sees its daily life-style change.

## Refurbishing the centres

Any centre must be defined with respect to a periphery and involves concepts of identity (identification of an individual or a population in an entity rich in meaning) and of scale. The latter induces a ranking, ranging from the centre of the metropolis to the centre of the village. We shall concentrate here more particularly on the old centres that structure the suburbs or which form the heart of small and medium-sized towns and villages. In fact they represent «daily life centres», and concern communal action in the conurbations that make up the regional urban structure.

It is in these centres that history has built up the layers that give them a large proportion of their richness and attraction. The centres constitute the arena where the local decision-makers will seek to elaborate the signs that will enable the greater part of the population to identify with it. Again, these signs will reflect the image that themselves and the public project, in other words, the standard urban landscape generally corresponding to the time when the centre was the site of practically all «local life». And, for reasons already given<sup>(1)</sup>, the «*Belle Époque*» is rediscovered, and its signs appear today in the refurbishing of centres «on a human scale»: elimination of the motor vehicle, «warmer» materials (notably for paving), street furniture that copy the old styles (lamp standards, Morris columns, Wallace fountains, and so on), keeping up small shops and neighbourhood services that «create

(1) See above «Landscapes: perception, dreams and experience»

animation», retaining the population, planting lines of trees (which had often been sacrificed to the motor car), and so on.

It is in the centres too that history has concentrated the signs of the traditional values of western civilisation — institutions, commerce, religion, culture — some of which (primarily commerce) are today moving out. Viewed over the long term, for some twenty years the actions taken by communes in their centres have been in three directions<sup>(2)</sup>: improving the image of the centre, seeking to affirm a communal identity (rehabilitating buildings, clearing away obsolete premises, attempting to rebalance the population between centre and suburbs); action affecting public areas (materials, furnishings, plantations, traffic calming, and so on) with a view to rediscovering the lost friendliness of the town («urbanity»); sustaining or redeveloping activities. None of these actions are without effects on the urban landscape, through the development of buildings, public areas and the signs they bear (advertising signs, furnishings, etc.).

### *Rejuvenating the old centres*

Town planning policies are a matter for communes, within the framework laid down by the government. Similarly the restoration of urban centres is the communes' business; they are empowered to take the initiative, set up projects and provide part of the funding, and to apply for grants. Rehabilitation projects concern old housing, social housing, and public areas; they also aim to provide attractive conditions in order to retain shops and services.

In the old centres, the procedure most used is that of the Operations for Housing Improvement (*Opérations programmées d'amélioration de l'habitat*, OPAH). This procedure dates from 1977, but its aims and its means were redefined in the Framing Act for Towns (*Loi d'orientation pour la ville*) of 1992<sup>(3)</sup>.

By its very nature, the OPAH is a scheme that provides incentives to owners (whether lessors or occupants). It involves prior overall consideration of the city and the district; it also means involving residents in the changes affecting their environment. One of the keys to the success of these operations is that a supervisory team selected and paid by the

communes is present in the field for a period of years. Its continuous presence, its good understanding of the district (the same people have usually carried out the prior study for the operation), and its role as an architectural consultant, give it a key role in every operation. Since these schemes are aimed essentially at raising old dwellings to modern standards, they themselves have no direct impact on the urban landscape. Indeed their main goal is still to bring about improvements to private dwellings while preserving the districts, minimising transfers of ownership and preserving the sociological balance to the maximum possible extent. However, they are always accompanied by financial arrangements to cover the cost of cleaning the fronts of buildings, additional design work, and improving the common areas of blocks of flats. Finally — and above all — they usually represent a genuine town planning action covering public areas, local facilities and the commercial environment. This series of actions mobilises all concerned, creating its own synergies, they ensure the success of the scheme and generate further developments that continue beyond its normal lifetime: indeed communities frequently reinforce the voluntary nature of these schemes by initiating related procedures:

- amicable acquisition of blocks of flats, which are then restored with funds for low-cost housing (PLA),
- restoration of property, works being in fact compulsory, with the threat of compulsory purchase,
- refurbishment of unhealthy dwellings (RHI),
- declaration of public utility (which gives local authorities the right of compulsory purchase), or «ZAC» development zone, procedures which involve demolition with the right to be rehoused.

### *Restoring and developing the building heritage in the villages*

The studies carried out in the rural communes of Ile-de-France, during the preparation of local town planning documents or the formulation of the charters for regional nature parks,

(2) Here the study by Elisabeth Bordes-Pagès is interesting: *'es centres-villes. Politiques de revitalisation des centres*, Paris, IAURIF, 1996.

(3) The following lines on the OPAH are based upon André Massot: «Informations Financement. Les Opérations programmées d'amélioration de l'habitat». *Les Cahiers de l'IAURIF* (IAURIF Journal), *Supplément Habitat*, No. 10, January 1995



revealed the extent to which buildings in the centres of small towns, villages and hamlets could be in poor condition and even falling into ruin. Regulatory measures are unable to provide a solution. At the very least they have the merit of showing up the problems as they are being formulated, and of increasing local awareness.

Most homes in rural areas were built before the war and still lack elements of comfort. Rented property, the particular target of ANAH (National Housing Improvement Agency) grants, despite its limited extent in rural communes, appears essentially to concern the agricultural sector. However some rented dwellings are used as secondary homes, which ensures their continuity.

The profound economic changes that have so upset the farming world have left many of its buildings — barns, stables or houses — empty and abandoned.

If this quite ordinary stock of buildings, so bound up with the image of the rural landscape, is to survive, there is a need for schemes to raise awareness and to inform (by means of appropriate guidelines and sets of recommendations), and for the programmes of the Town Planning, Architecture and Environment Advising Boards (CAUE) to prevent its disfigurement: for example by creating horizontally orientated windows so as «to see the view», French windows to make it possible to «step outside», dormer and «gable windows» everywhere as part of the process of increasing the living area, installing unconventional fences, planting species alien to the region, rendering buildings with unsuitable materials and in unsuitable colours. Action has been taken over many years, particularly by the CAUEs, to ensure that private buildings and conversions and urban developments progressively improve village landscapes, and to prevent them from being irretrievably ruined by inappropriate projects.

Accordingly these communes, in rehabilitating their buildings, must undertake schemes to make the most of the potential of their centres, so that some of the dwellings necessary for sustaining the life of the village or small town are made available, so as better to integrate new arrivals (at a time when employment is rising in the outer Paris suburbs although it is falling in Paris) and to preserve and develop quality architecture, that bears witness to the develop-

ment of rural society, such an integral part of the «French landscape».

More far-reaching schemes may also be envisaged in rural areas so long as they are initiated by an intercommunal structure whereby their coverage can be widened. The vehicles for such initiatives will therefore be rural districts and federations of communes, focusing on the execution of schemes which, although frequently modest in extent, are valuable for their slipstream effect with regard to private initiatives, the voluntary involvement of the inhabitants becoming a fundamental criterion of success in public intervention.

In this type of scheme, it is the fine details that have particular importance as regards the effect on the landscape: the shape of windows and dormers, the type of renderings used, roof materials and shapes, shutters, the maintenance (or even re-establishment) of the forms of facades, the colour and type of woodwork<sup>(5)</sup>.

However, it is primarily the secondary or accompanying actions that will be decisive as regards changing the landscape: laying power lines underground or grouping them together, developing tiny squares, restoring fountains and old wash-houses, cleaning up the surroundings of churches, cemeteries and vacant lots, removing lean-to buildings, taking away electricity transformers, planting trees and planning land use, dealing with advertising and street furniture, harmonising fences, and so on. There is a long list of possible projects, often modest and inexpensive, but whose implementation would be of benefit to the landscape<sup>(6)</sup>.

### Treating the outer suburbs as pieces of the town

In landscape terms, and from a highly schematic point of view, the suburbs consist essentially of two main types of urban fabric: individual houses and block of flats. This chapter will not deal with the development and refurbishment of districts that involve both these types of

(5) There is a substantial literature on this topic, particularly G. Doyon and R. Hubrecht, *L'architecture rurale et bourgeoise en France*, op. cit., M. Vincent, *Maisons de Brie et d'Ile-de-France*, published by the author, 1981, together with the many publications by the various CAUEs

(6) On this subject, see the extremely interesting dossier put together in 1980 by the DDE of Seine-et-Marne and by Deat, Fabre and Vassord, architects *Éléments pour une opération de réhabilitation sur le canton de Lizy-sur-Ourcq*.

urban fabric, and which make up a large part of our suburbs, whether in major cities or in small or medium-sized towns. The picture they present is usually that of districts in a process of change, where craft trade activities, still present, are gradually being replaced by blocks of flats, together with a few houses or groups of houses the destruction of which is encouraged by regulations that permit collective housing, or by family changes which are settled by the sale of property. The changes in these landscapes are more to do with the transformation of the city on the city<sup>(7)</sup>.

### **Requalifying the public areas of the single-family housing districts**

In the Ile-de-France, the pattern of individual houses was built up in three major stages<sup>(8)</sup>:

- before the Great War, areas of pasture and woodland adjoining the centres of market towns and villages close to Paris were sold to provide well-off city dwellers with a taste of life in the country;
- between the wars, in response to the housing crisis, a tidal wave of individual houses broke over the fringes of the conurbation, mostly on agricultural land; encouraged by the *laissez-faire* attitude of the time, this led to frequently difficult situations that were gradually resolved over the next few decades;
- after the Second World War, there was a slow process of «infill» of the individual house fabric with progressive improvement to facilities, the gaps having been filled by blocks of flats or other facilities.

**In the central part of the conurbation, individual houses cover more than 100,000 acres, in a pattern consisting of four principal morphological types:**

- estates, of a great variety of shapes, but broken down into regular plots;
- rural plots replacing vineyards and orchards, often located on well-exposed hillsides;
- the mixed pattern, arising from the densification of the above through the insertion of new plots or new roads;
- grouped individual housing, which is found in the garden cities of the inter-war period as well as in the grouped projects carried out after 1960.

The stock of individual houses is coming under growing pressure owing to the quality of life it represents and the way in which it is increasingly well served from other parts of the city. However the communes are adopting generally conservative attitudes to individual housing. The type of building, the status of ownership, and the care taken in maintaining the housing stock do not make it a preferred field for housing refurbishment projects. As a result there is a degree of stability or even stagnation of the whole landscape.

However there is action to be taken, especially in the vast areas where greenery is at a premium, where the urban en-

vironment consists only of footpaths, fences, street lights, electricity posts, and everything capable of reflecting individual expression through facades, roofs, ornamental gardens and, of course, fences.

In this context, **only action in the public space can have significant results in terms of landscape:**

- giving varied importance to roads, to attenuate the monotony of some large housing estates;
- the greening of streets, squares, facilities, and so on<sup>(9)</sup>;
- the progressive restructuring of overhead and underground power lines and other services which take up space and prevent the growth of vegetation;
- tackling the main roads through the conurbation (every national road giving access to the capital, and certain departmental roads) as they pass through the areas of housing.

These projects must be mutually coherent and subject to the overall policy that each commune intends to implement. In this connection the formulation of «Greening Schemes» (*Plans verts*) has the advantage of co-ordinating the efforts of different groups and raising awareness that green areas are more than a simple post hoc decorative scheme. In this way, individual projects form part of an overall concept. The Greening Scheme, as an integral part of community urban projects, is the basic regulatory approach for the progressive development of public areas, which may with advantage be supplemented by concrete arrangements for its implementation.

For treeless housing estates, trees planted along roads form a veritable green network that can connect the different districts and the town centre, structure and clarify space and hence the landscape. The delineation of certain roads by trees can introduce some differentiation into a road network that is frequently monotonous. This type of differentiation may also be marked by other kinds of development: the creation of small estates, of «urban squares» or «closed streets», frequently used today for the introduction of quiet areas (reduced speed limits, traffic calming measures, and so on).

### **Refurbishing large housing estates**

The symbol of the «sickness of the suburbs», the large housing estates built in the twenty-five years following the Second World War have been the subject of constant attention for some twenty years.

The design of large housing estates was largely based on the principles of the Athens Charter, with open design and the differentiation of space according to its use: the resulting functional segregation, the disproportionate spaces pro-

(7) See above: «Building the town upon the town».

(8) See «Le milieu pavillonnaire en région d'Ile-de-France», *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 68, June 1983; «La banlieue pavillons hauts», *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 76, June 1985, and above «Building the town upon the town».

(9) See Michel Biancale and François Dugény. *Le verdissement de la banlieue. Contribution à l'élaboration d'une méthode*. Paris, IAURIF, 1983.



duced on the scale of districts containing several thousand dwellings, the disappearance of any sign of ownership other than the collective ownership of the ground, the grouping of facilities and shops at a few points «of attraction» turn them into «non-cities». The practice of zoning, the urban landscape created, and the way in which dwellings were allocated (running contrary to any social mixing) all combine to turn these areas into pockets of urban poverty.

The designers of these housing estates, by wiping out all trace of history from the ground, by building towers and long blocks that conceal the image of the city (right down to its ground), and by eschewing any continuity with the old city, have built new landscapes, on the pretext of modernity and social progress, around which the image of exclusion has gradually grown up.

**The projects that have been or will be implemented in these districts may schematically be classified into three categories: the refurbishment of buildings, extensive rebuilding, and urban redevelopment.**

In a manner similar to what has been done for obsolescent dwellings in the old city centres, the large estates of social housing have been the subject of schemes to raise the standards of comfort, particularly in terms of sound and thermal insulation. This involved changing the external appearance of many buildings: different materials, newly built roofs, and so on. The *Habitat et vie sociale* (HVS, Dwellings and Social Living) operations at the end of the 1970s, followed by the *Développement social des quartiers* (DSQ, Social Development of Districts) of the 1980s, initiated integrated programmes in this type of districts: building restoration was supplemented by extensive sociological consideration of the life of the inhabitants, which resulted in the remodelling of the buildings (stairwells, balconies, common areas, entrance halls, etc.) and of the public areas (new types of separation, gardens, better security, play areas) and by improvements to facilities. These were the forerunners of the urban redevelopment operations so familiar today, and whose impact on the urban landscape was already being seen.

Today, restructuring operations often follow the *Grand Projet Urbain* (GPU, Major Urban Project) procedure. These are costly schemes which may extend up to the destruction of a number of buildings or, conversely, may provide for the construction of new buildings for residential or other purposes, making it possible to recast the master plan for the residential area concerned. These are no longer refurbishment projects, but rather operations where a new city is built on the city. An obvious example is the project proposed for the Val d'Argent in Argenteuil by Laurent Charré and Roland Castro as part of the GPU<sup>(10)</sup>.

What more closely resembles refurbishment of old urban centres are the improvement operations made under different city policies, launched in particular by the Ile-de-France Region.

Besides projects concerned with housing and the common areas of housing estates, schemes are in hand for redeveloping public areas. These aim to improve links with the other districts of the town, to de-isolate the district in question as regards public transport, the principal facilities, employment and service poles in the conurbation of which it is once again to become an integral part.

They affect transport, but also — and above all — the way in which boundaries are dealt with, and therefore have an impact on the urban landscape (as regards the continuity of greenery, managing public areas, and so on). They also have an effect on the redrawing of boundaries, dramatically absent in the first place in the projects that generated these districts, reducing space to its simplest terms, and raising the problem of territoriality in an acute manner. One of the reasons why green areas in large residential complexes are badly used and poorly managed is that there is no differentiation between them: green infill that everywhere looks the same, lacking any intimacy (nobody knows what belongs to the building, the block or the town). The maintenance services of low-rent housing companies (HLM) and of the communes themselves do not always know where the boundaries are between their respective territories. For some schemes, success has stemmed from the clear delineation of their areas of intervention. The introduction of these boundaries can recreate a lost pattern the urban environment is likely to seize upon. In the same way, there should no longer be any doubt about the status of space, between that which is public and that which is private: «The boundaries should blossom again. The urban environment should get back its signs: naturally the signs showing what is public, but also what is a service, a shop, and a business; a kind of marking enabling one to find one's way in what is a uniform entity (streets, address, entrance, private garden, balcony, terrace or bow window, reference points)»<sup>(11)</sup>. These boundaries will also be a way of bonding with the territory, with history, of linking up to a social habit, with the passage of time.

It is in this sense that these schemes will make it possible to reform the landscape of these districts, to occupy space, to articulate spaces between one another, to reintegrate the town. Although the essential aspects of the solutions adopted lie elsewhere (in the ways in which housing is allocated, in jobs, in social, commercial and cultural activities), space is still the underlying medium and the way in which its constituent landscape is dealt with is fundamental.

(10) See Manuel Delluc, «Val d'Argent: le remodelage à l'échelle de la ville», *Le Moniteur des Travaux Publics et du Bâtiment*, No 4884, 4 July 1997.

(11) Françoise Guyon: *Urbanisme de dalles et quartiers d'habitat social*, Paris, IAURIF, 1996.

## Limiting the proliferation of street furniture and signs

### Controlling advertising

Advertising hoardings are sometimes present in large numbers in old town centres; the act of 1979 forbids them in rural areas and regional nature parks, but in the dense suburbs they are everywhere.

Through signs and posters, advertising has become a component part of the urban environment. There has always been advertising to point to the presence of tradesmen or shopkeepers, to celebrate on the town's walls, especially in the growing city of the early 20th century, the delights of such and such an aperitif, shoe polish or biscuit. But all this advertising, less integrated than it used to be, may become a nuisance: a single hoarding in the wrong place can destroy the harmony of a site; an abundance of hoardings kills off the town, with its overbearing and ubiquitous presence in the landscape, by masking urban forms, and by highlighting vacant lots, blind walls and other lacunae.

The poster, the sign and the advertising hoarding are all indicators of the economic reality of production, but also of the whole series of actors who contribute to the advertising act: the producer, the advertiser, the billboard firm, and the owner of the land where the hoarding is located. As far as the communes are concerned, this is an important issue: introduction of the communal tax on advertising, on fixed advertising hoardings, through the signature of advertising concessions, agreements on street furniture, and so on. As an economic vehicle, particularly for commerce, the interests of advertising are often remote from the harmony of the urban landscape: to have the greatest impact, hoardings and signs must be seen, here and there battling with size and colours in an attempt to attract the largest number of customers to increase the advertiser's profit.

**The objective of regulating advertising and signs is to regulate interests that are sometimes contradictory:** on the one hand the freedom of expression and of circulating information and ideas, a freedom essential to the expression of commercial dynamism, on the other the necessary protection of environment. The act of 1979 lays down the general framework of the relevant provisions, but leaves it to

the communes to adapt these national regulations to their own constraints<sup>(12)</sup>.

At national level the 1979 act and its decrees of application set out precise regulations for advertising hoardings and signs. The provisions vary according to the context, depending on the size of the commune and whether monuments or protected sites are present.

Simply looking into the way in which the national regulations apply to the communes soon identifies the problems: advertising hoardings that are too big, too high, extending beyond the supporting walls, signs on legs that are too tall, roof signs involving more than straightforward letters, and cut-out signs. In many cases, applying the national regulations is sufficient to settle what previously seemed conflicting.

The 1979 act also makes it possible to draw up local rules, a kind of guide to advertising and signs, by defining particular areas corresponding to sectors, differentiated patterns of buildings (centres, commercial areas, industrial zones, main roads, etc.) with appropriate requirements.

Many variations are possible: requiring particular types of hoarding, signs, locations, colours, densities, and so on, but it is essential to abide by two principles:

- The regulations should be commensurate with the urban characteristics of the commune: for example banning all advertising in an area that has no particular architectural or landscape value may be considered excessive;
- There must be some equality of treatment between private and public advertising; for example, prohibiting advertising in private areas and allowing broad compass to that on street furniture is likely to be rescinded by the court.

Accordingly the local rules make it possible:

- to be direct, adopting only the provisions that apply to the commune in question according to its population (below 2000, between 2 and 10,000, or over 10,000), and redrawing certain rules to make them more explicit and easier to apply by the relevant departments;
- to apply more restrictive rules, for example

(12) It is interesting to consult the *Guide de l'affichage* (Guide to Advertising) published by the *Agence régionale pour l'environnement et les nouvelles énergies* of Ile-de-France. This document is intended for mayors, decision-makers and municipal services; its primary objective is to help them define their own strategy with regard to advertising and signs, observing and applying national regulations, and as regards specific issues requiring local control.



by adopting the provisions pertaining to a conurbation with a population of under 10,000 for one with a population of over 10,000 (the smaller the conurbation, the stricter the rules);

- to introduce diversity, by drawing up original provisions, by regulating the circumstances not covered by the law.

Every town planning study, whether a preliminary study or a scheme for development («ZAC» type development zone, parcelling, etc.), the drawing up, revising or modifying the land use plan (POS), the introduction of a special heritage preservation zone (*Zone de protection du patrimoine architectural, urbain et paysager*, ZPPAUP) or of intercommunal approaches, is the opportunity to reflect on the position of advertising and signs in the town, in certain of its sectors. However only the local rules may contain provisions relative to advertising and signs: for example a ban on advertising in a housing development regulation has no legal value.

Thus in the absence of local rules, the national requirements apply, prohibiting advertising on/in and around the protected monuments and sites (under the 1913 and 1930 Acts). However, protection of other aspects of the property must be based on a voluntary communal approach. In protected sites, signs require the authorisation of the *Architecte des Bâtiments de France* (architect responsible for protected buildings); in all other cases the national requirements are not very restrictive.

Too many hanging signs, too many signs parallel to the wall, signs that are too big or too high, or constructed using unsuitable processes (systems with flashing or moving lights, for example), the increasing number of these minor «aggressions» finally destroys the fragile equilibrium between giving life to the street and advertising shops. Drawing up local rules makes it possible precisely to control signs by introducing regulations and by requiring prior authorisation, an opportunity for the commune to set out the reasons for the regulations and to convince those concerned.

Since towns overlap, particularly along major roads, actions to improve the integration of advertising and signs in the urban environment should involve an intercommunal approach as frequently as possible; this is also foreseen by the law. Isolated initiatives by one

commune frequently results in the problems being transferred to its neighbour.

By means of all these approaches, many cities (Nantes, Longjumeau, le Plessis-Robinson, and so on) have managed substantially to reduce the number of their advertising hoardings. Indeed those involved professionally in outdoor advertising themselves acknowledge that the business has often reached saturation, that too many messages kill the message, and support some of these schemes. A partnership arrangement between the region of Ile-de-France and the Chamber of Advertising is under consideration.

Apart from these considerations however, one may ask whether national regulations are sufficient, by comparison with neighbouring countries where the maximum size of posters is smaller by a factor of 4 to 6 than the French 12 square metre hoardings. The press, radio, TV and the Internet are today reaching wider targets. With all our new communication technologies, does outdoor advertising still need to be so extensive?

### *Bringing order to street furniture*

**The character of towns and villages is also changed for the worse by the uncontrolled proliferation of street furniture:** bench seats, bus shelters, telephone boxes, street lighting supports, selective waste collection containers, jardinières, etc. At a time when the smallest building requires a construction permit and must abide by the requirements of a land-use plan, local authorities and public services are allowed to install their furniture wherever they see fit, unaffected by any requirements governing style or co-ordination. This problem is not one of the deprived areas: it affects nearly every commune, especially their centres or where there are most people. It is not always resolved by the schemes to refurbish or develop public areas. On the contrary in fact, such schemes are often the opportunity to increase the number of objects of debatable value and taste, hardly legible and of a complexity not commensurate with their location (such as the «busy» decoration of roundabouts that are inaccessible to pedestrians).

**The causes of this situation include the sectoral approach** (here again), as whereby every service installs its single-purpose furniture, without any co-ordination with the others

involved; **advertising**, the result being the installation of furniture whose non-advertising purpose (municipal information, for example) is frequently no more than a pretext; **the predominance of motor traffic**, which generates many no-go areas even in the town (roundabouts, traffic islands, central reservations, and so on), all incentives to incongruous decoration.

**One basic principle underlies any improvement to street furniture, and that is simplicity:** limited numbers, modest shapes, uniformity of style, and planning of layout<sup>(13)</sup>. It is not the function of street furniture to give life and diversity to a street, nor that of trees and gardens or variations in building volume. It is the peopling and variety of activities taking place in public space — commerce, walks, encounters etc. — which should be responsible for introducing complexity.

**It is essential as far as possible to abide by a uniformity of materials and style within a given entity, a harmony with the buildings, a layout designed so as not to degrade important sights or give an impression of chaos.** It is common for a given item of furniture to combine several functions (bus shelters and telephone boxes) but this approach could be extended.

The entity within which unity of style is desirable is not necessarily the commune: it should rather correspond to a well-defined entity in the urban environment. In certain very particular cases, this may be smaller than the commune (thus a specific line of furniture has been designed for refurbishing the Champs-Élysées in Paris): the scale of the commune is justified if it is geographically individual (this is the case of Paris, for which comprehensive furniture was designed under the Second Empire, or of a conurbation consisting of a single commune); generally speaking, street furniture should be designed on an intercommunal basis, contrary to the trend whereby most communes seek to become individual. Thus the urban community of Greater Lyons (*Le Grand Lyon*) has taken the audacious step of adopting a unique line of furniture for the entire conurbation (over one million inhabitants). Indeed, apart from very large communes, the intercommunal level is the only one at which an exclusive line of furniture could be viable. In Ile-de-France, a number of

intercommunal entities are sufficiently well identified to form such units: the medium-sized conurbations (such as Meaux, Melun, and Mantes), the new towns, some geographical entities such as the valley of river Bièvre (where the downstream valley communes have designed a common furniture), that of the urban part of the Marne (with a possible reference to the history of leisure activities beside the lower reaches of the river), and that of Montmorency.

In the villages, it is also possible to conceive of entities corresponding to the traditional *pays* (Brie, Beauce, Valois, etc.) or to the regional nature parks. Here however the less ordered character and smaller scale of the buildings make it possible to build locally adapted rather than prefabricated structures (using the same materials as the buildings), bearing upon or integrated with the buildings (lean-tos, canopies, etc.) rather than forming separate items; the bus shelters and telephone boxes may be identified by a sign if this approach makes them too invisible.

(13) On this subject, the very interesting paper by Michel Corajoud is relevant: *Les espaces de la Plaine-Saint-Denis. Premiers éléments de la définition d'un vocabulaire*. SEM Plaine Développement, communes of Saint-Denis and Aubervilliers, 1996-97.



# Designing the urban fringes



**T**he outer edges of the conurbation — the urban fringe zone — is one of the geographical sectors that have seen the greatest transformation. The original rural landscape has practically disappeared, and has not been replaced by any other of structured form. It is as if the buildings left over from farming have been absorbed by the wave of new construction.

It should be possible for these intermediate areas, which are neither town nor country, and partitioned by roads, to regain some landscape value that would give them back an identity and some sort of urban image. In these areas it is a question of requalifying, safeguarding and refurbishing the open spaces that are left over from the rural landscape or from old structures, and to remake the built-up areas in such a way that they can evolve and become real component parts of the town. It is also a matter of managing the boundaries between the areas that are built upon and those that are not, in order to form «fronts» or transitional areas that will not be perceived as the fraying edge of urbanisation or the abandoned bits of the countryside.

Various things can be done in order to:

- respect and enhance the features of local geography and history;
- constitute urban «fronts» or transitional spaces;
- develop empty spaces and give them status;
- preserve the agricultural character of open land;
- preserve forests and other natural spaces.

## Structuring the urban boundaries

### *Respecting and enhancing the original components of the landscape*

When the decision is taken to urbanise vast areas that are still sparsely populated, there is no suggestion that all the existing features of

the landscape should be eliminated:

- the physical structure (plateaux, slopes, valleys, rivers, hills, views, etc.);
- the primary aspects of vegetation (woods, copses, lines of trees, parkland, and so on);
- the old land patterns or historical traces (ancient roads, paths, tracks, vistas, canals, and so on);
- existing buildings, usually rural in nature;
- local history: use of the land, local experience, social practices.

On the contrary, it is important to utilise all these features to give an identity, character and a degree of coherence to the new urbanisation.

**The important features of the old buildings that have come down from the rural past are still very present in the urban fringe environment** — and even dominant on the outer edges — **but as a rule they are no longer much regarded.** It is nevertheless a fact that the structure and originality of the urban fringe landscape is largely based on these rural features: suburban centres with close-packed low houses, which are old market towns, the old land pattern that induced the original layout of buildings and enclosing walls, farms in the centre of former villages, the arrangement of courtyards, paths, planted areas (like the orchards in the valley of the Seine) which can orchestrate the built-upon landscape. The old centre of Fourqueux, the relay-post and farm of le Chenil at Noisy-le-Roi, the orchards of Mareil-Marly in the Yvelines give some idea of the richness and continuity of the rural structure in the region's urban fringe environment.

These rural remains are accompanied by the organised network of parks, prospects and royal roads mostly introduced in the 17th and 18th centuries. Much of the parkland has disappeared or been sold off, but has left behind retaining walls, terraces, avenues, prospects and the old land patterns. Many streets are based upon old prospects, avenues, royal roads or

forest rides: the rue Royale in Boissy-Saint-Léger and Sucy-en-Brie, an extension of the royal road of the Bois Notre-Dame; the avenue Jean-Jaurès in Châtenay-Malabry, an extension of the main avenue in the park of Sceaux. The sectors recently urbanised or which are still going through the process also show such traces — the chaussée Jules-César in Cergy-Pontoise, the royal avenue linking the forests of Sénart and Rougeau — of which more could be made than has been done for the other examples quoted. Elsewhere, the urban fringe landscape is inscribed by inland waterway structures such as the canals (Ourcq, Saint-Denis and Saint-Maur), locks and quays. Less obvious traces, such as the network of drainage channels on the plateau of Saclay, could also form the basis for a new layout. Generally speaking, from the 17th century on, the gardens, parkland and other landscape features have frequently prefigured the town or provided models for the way the suburbs are laid out. The rediscovery of this tradition bears witness to the desire once again to formulate «linkage» projects on the basis of this history and for which the suburbs were the effective laboratories<sup>(1)</sup>.

Accordingly, **the actions to be taken should begin from a better understanding of the original character of urban fringe areas and of their history.** This effectively provides the initial guidelines for ensuring that urban development is in tune with the singularities of the landscape and the traces of its past organisation. The conclusions of the investigations to be carried out in this case could be carried over into land use plans (POS), into the studies of future development zones (NA zones) or into the planned development zones (ZAC). They can also provide guidance for developments carried out under Departmental or Regional contracts.

### *Establishing urban «fronts» or transitional spaces*

The principle whereby the structuring features of the site should be respected is particularly valid as regards establishing the boundary between urban space and open country. This boundary has long been marked in a particular way, whether sharp (by means of ramparts) or progressive (the suburbs of the town, or the orchards around villages). These days, the edge

of the town appears to be an uncertain thing: a built-up area indistinguishable from any other directly adjoins a field or a wood. The transition is marked only by a change in the density of the urban sprawl or by vacant lots. There is no longer any linkage space. This situation is unfavourable both to farmland (owing to the risk of intrusions and damage) and to woodland (filling up the borders) as well as to the urban area itself (loss of legibility).

In the rare places where there is proper linkage, it is usually effected by means of parkland, which interfaces equally well with the town and the countryside. **Establishing a linkage space to articulate town and country is made difficult by the highly mobile nature of the edges of a growing town.** The design of an urban fringe in a context of mobility should therefore abide by a number of principles<sup>(2)</sup>.

**The town should be articulated with the countryside through a specific space.** This is the basic principle. The width of this space may be highly variable, ranging from the extreme case of a rampart wall up to a park the size of that of Versailles. A highway can form an effective articulation, so long as the town planning schemes resist the temptation to utilise the land on either side, and do respect it as a true boundary. This approach was adopted in the master plan for Rennes: not only does the outer bypass serve as a boundary to the central conurbation, but the suburban developments on certain sides are bounded by other roads. Of course, it is also essential for the characteristics of the road to be related to the role it is supposed to play: they must be those of a boulevard (rather than of a motorway), with planted areas, service roads, etc., and the points of entry to the town should not be limited to cross-roads or interchanges.

If there is plenty of farmland, as there is to the West of Cergy or the East of Sénart, the contact zone between the two areas may be relatively narrow, with the urban «front» visible from the open space and the open countryside from the town. If the farmland is narrow or forms an enclave, too visible an urban «front» is liable to render it more fragile by emphasizing its suburban character, and to make it appear even narrower (whatever is measu-

(1) See Sébastien Marot, «L'alternative du paysage», *Le Visteur*, No 1, 1995, pages 65-66.

(2) Partly from J. Sgard, *Les grands paysages d'Ile-de-France (op. cit.)*, p. 14.



rable — like the facade of a building — always looks smaller and closer than that which is not, like the edges of woodland): it is then better to conceal the greater part behind a woodland screen, which restores a rural character and a certain amplitude to the open land; some built-up features, if well-designed, may emerge above or beside the woodland, particularly at access roads. In this way, it was proposed that a strip of woodland should be sited in front of the future scientific centre on the plateau of Saclay, facing a peri-urban stretch of farmland which the communes wanted to keep in place<sup>(3)</sup>.

**The town should advance through a series of fronts. Each zone of extension is the subject of development in itself;** in this way the town is articulated with the countryside at each stage of urbanisation and its leading area does not look like a permanent worksite. **In this context, greening the articulation zones also plays an important role, because the planted areas can be introduced before the space they delineate are filled in by buildings: this is «pre-greening».** Each time a green front is overtaken by urbanisation, it becomes an urban park, forming part of the organisation of a green network; its development can be adapted to accommodate more people and neighbourhood activities. In the example of the Saclay plateau already mentioned, the urban front is progressing in two major phases, each bounded by a longitudinal greened front and, within each phase, in stages separated by transverse green links.

**As the town expands, it should base itself on features of the existing landscape in such a way as to advance harmoniously:** ridge lines, copses, tree-lined avenues, features of the architectural heritage. A ridgeline is a strong boundary, because it forms a visual cut-off point. It is preferable to place the urban boundary there, rather than in the valley bottom, from which the still rural slope will face the developing town on the other side. In Poissy, the Regional Development Plan took up a proposal from the landscape study that preceded the local development plan<sup>(4)</sup>, which recommended that the integrity of a valley should be maintained. If the basic features do not exist, they can be created: copses, planted areas, rainwater ponds, lagoons, and so on.

## Managing the voids in urbanisation and their continuity

«Voids» or open spaces, of whatever size, can take on substantial importance and value having regard to the density of conurbations, the concentration of activities and the compartmentalisation of space. They become areas of freedom and release and can play a substantial compensatory role; in a vast ensemble like the Paris conurbation, the presence of these empty spaces is a factor of equilibrium.

**The continuity of open space is of great value. The continuity of unbuilt spaces structures the landscape, introducing points of reference, by individualising the urban entities. It also makes it possible for them to be used for walks,** green avenues or cycle tracks. The continuity of the open spaces preserves and enhances the feeling of freedom. A natural valley whose continuity it has been possible to preserve offers great opportunities for escape. When such space is natural, it forms biological corridors that encourage the dissemination of plant and animal species, and hence diversity.

If the void is to retain or acquire these qualities, it must be controlled and managed. It should not merely be the opposite of urbanisation, but a space in its own right, with a statute, a social purpose, and a function in the urban ecosystem.

**The spaces that are not built upon should not systematically be filled with woods or parkland.** The true open space is the one that offers horizons, and that emptiness that seems to make breathing easier. By looking at these horizons, hills, wooded borders and the edges of the town, it is possible to understand the geography, to locate oneself, and to identify the natural and urban entities. This open space also has an ecological function, by providing environments that complement the woodland. Even less should the open spaces within the conurbation become the corridors through which new infrastructure, such as roads and power lines, penetrates.

The edges of open space play an essential role, particularly if the area is narrow, as in valleys. Buildings take on great importance, as do copses and lines of trees. All the individual elements, visible from far off, make a contribution to its visual vitality or, perhaps, to its devaluation. Hence the importance of landscape action to optimise or preserve the quality of emptiness, to reduce the sometimes excessive influence of certain elements (urban boundaries, business zones), to act upon the subdivision of landscape and particularly on that of planted areas that are capable of bringing life to the space.

**The task of preserving open spaces in the urban fringe environment has been in hand for many years under different regional projects,** particularly the regional Green Belt project, an essential component of the regional Green Plan.

The great regional landscapes — such as those of Vexin, Mantois, Beauce, Brie or Valois penetrate into the built-up areas, contributing part of their identity and their stock of space. The leading edge of these major regional landscapes constitute «key spaces». The danger is that these spaces are hived off, cut off from the rural territory to which they belong, as the towns expand. In fact the current tendency is

(3) See E. Huybrechts, J.-F. Vivien and P.-M. Tricaud, *Plan d'actions paysagères du plateau de Saclay*, Paris, IAURIF, 1996

(4) E. Bordes-Pages and P.-M. Tricaud, *Plan-guide d'actions paysagères du -COMPAV-*, Paris, IAURIF, 1993

for them to become enclaves in the urban space, losing their character owing to the problems agriculture is having in holding its own, becoming wasteland and finally built upon or converted into urban green spaces.

### *Preserving the agricultural character of open space*

The agricultural landscape on the urban fringe is more diversified than in the countryside at large. It varies according to the crops grown, but also as a function of the location of the particular zone with respect to the conurbation. Thus some sectors are linked to the open country, and these correspond to the extensions of the major plateaux of the region: Brie, Beauce, Plaine de France. However other zones, closer to the conurbation, become enclaves and are exposed to greater pressures. The forward areas of the plateaux, linked to the open country, benefit from its dynamism. The priority is to preserve this continuity in order to prevent any functional separation from the rural area that would threaten their viability.

The zones closer to the conurbation, wholly or partly enclosed, are more threatened. Once factor in their fragility is the high proportion of horticulture and orcharding, which at present are facing economic difficulties. The pressures on agriculture in general are threatening the continuity of the productive role of the farm and hence the landscape itself: urban pressures have effects on property (the price of land, uncertainty about the future, risky leases, and so on); the passage of linear infrastructure and the development of new areas of urbanisation lead to the break-up of farms (the viability of small farms is threatened by every new compartmentalisation); the forced cohabitation of farming and urbanisation creates problems (difficulties in supplying and selling products, traffic problems, disputes with the urban population, and so on).

In these fringe areas, every farm that is abandoned opens the door to the growth of wasteland and the uncontrolled expansion of urbanisation. The lack of any clear boundary between urban and rural areas then becomes the rule. At the very best, consideration is given to setting up public parks. It cannot be denied that they have a role as a green belt and space for recreation, but they are extremely expensive.

### **Thus keeping land under agriculture is a condition for maintaining the open spaces in the urban fringe.**

To do this, agriculture must be given the means to continue to exist in these sectors. To begin with, it is a matter of acknowledging the specific nature of these zones, with their advantages and constraints. Local authorities can help the process by protecting land, affirming their desire to preserve these spaces in the town planning schemes, by verifying that development projects are coherent, and by encouraging the growth of new types of marketing. The farmers,

for their part, can utilise the advantage of the nearby town to diversify their business: making the most of their products through direct sales, devising other production systems by making full use of the countryside (riding centres, pick-your-own facilities) or by offering instruction (visits of schools).

The diversity of the activities carried on in the urban fringe is a source of richness, but also has adverse effects on structures. Overall decline, abandonment of agriculture, the wasteland around built-up areas, and the compartmentalisation of space all result in a lack of clarity in the landscape of open spaces. Some farmers have adapted to the constraints of their surroundings and have seized opportunities according to their individual strategy. However this approach is more one of survival than of an attempt to requalify the urban fringes.

The reconquest of the transitional zones between the town and the country can and should be based upon agriculture. But it should also satisfy an explicit need on the part of the planners. Peri-urban agriculture may be commissioned by the town in order to:

- maintain gaps between urban areas;
- play an instructional role and contribute to cultural growth, by making production systems more visible;
- maintain the link between the town-dwellers and the rural world;
- perform certain environmental functions;
- maintain or construct a landscape.

### **Integration of agricultural activities into urban development projects is a prerequisite for requalifying open spaces in the urban fringe.**

Agricultural areas have long been regarded as «spare land». It was in 1994 that the Regional Development Plan (SDRIF) recognised for the first time the need to preserve agricultural land for the value of the activities carried on there. It is possible at local level to go further by actually incorporating agriculture into urban projects. Certain communes have already decided to do so: Mandres-les-Rose, communes on the plateau of Saclay, the area of Épinay-sur-Orge, Villiers-sur-Orge and Ballainvilliers, and so on.

As an incentive for agriculture to be incorporated into development projects, the farmers must be clearly commissioned by local authorities. Contracts should be negotiated between all concerned. In urban fringe areas, the needs of the urban population are also important. An urban project that incorporates agriculture must ensure that development decisions are coherent vis-à-vis agricultural areas. For example it will avoid the break-up of farms caused by the arrival of infrastructure or the superimposition of zoning requirements and multiple forms of protection.

Lying between the town and the countryside, «countryside parks» have a role to play in developing the new functions of agriculture in the urban fringe. Partnerships between local authorities and farmers would contribute to the joint deve-



lopment of management projects in these areas. Two kinds of agriculture are to be considered:

- farming whose first function is productive and whose landscaping role follows naturally, so long as the earth is not covered with plastic greenhouses;
- a type of farming that supplements its productive function by contractual activities based primarily on non-food services, to meet the demand of the city-dwellers.

The «urban agriculture» group of the *École nationale supérieure du paysage* (ENSP) is developing this concept of a landscaping and farming development project. The final project is built up from a landscape analysis, a review of farm viability, and sociological analysis of the needs of the population. A landscape project is then devised and negotiated with farmers and local authorities. Such studies have already been carried out in the Chanteloup loop of river Seine, in the hills of the Aulnay, and in the vicinity of the Bois Notre-Dame.

In the zones that are to be requalified, the urban project can incorporate activities other than farming. This is especially necessary in areas where agriculture is in such a weak state that it is liable to be abandoned, for example as people retire. Such activities can also contribute to strengthening the bonds between the town and the country, like allotment gardens for example.

### *Preserving natural spaces and forests in the urban fringe, and their borders*

**In the urban fringe environment, natural spaces are areas of importance that play a capital role in the discovery of nature by town-dwellers.** The continuity of green areas from the surrounding countryside to the conurbation is maintained in a «spokes of a wheel» pattern. In this way, the urban fringe space is the locus of wide gaps in urban fabric, leaving some space for nature where man's grasp is not too strong.

The management of natural spaces becomes more intensive the more the space is urbanised. A park or public garden remains urban in nature, integral with the town, while a space in the urban fringe introduces clearly natural sequences between the urban sequences, where the presence of localised elements of a natural

landscape remain substantial: copses, meadows, ponds, springs, etc.

The rivers and valleys in the Ile-de-France form a network converging on the central conurbation and are one of the main supports for «biological corridors». In the urban fringe environment, they have to support wide natural «flows», notably by maintaining meadows and riverside woodlands.

**Wooded areas should also find a natural continuity with the surrounding countryside.** Their preservation occasionally requires them to be acquired by local authorities, which alone have the resources to maintain them, particularly when they are already exposed to considerable public use. While most forests are already public property, there are still small compartmented private forests (for example on hillsides) whose primordial role in the landscape is sometimes at risk from bad management. Their necessary preservation may require more active policies: incorporation into forestry schemes, public purchase, management plans, and so on.

Wooded areas should retain a building-free border in order to ensure biological exchanges with the surrounding countryside and to allow the forest to «breathe». In fact, many animal species utilise the woodland cover for nesting and the open areas (borders and glades) for feeding. Also the building-free borders allow the public direct access to the woodland, so long as the network of paths that serve them are preserved. Finally, these particular areas should not be dealt with as «green spaces», which simplify the ecosystem.

The fundamental importance of border areas has been recognised. As regards the SDRIF, this was reflected in the obligation to maintain a non-built upon strip at least 50 metres wide around woods exceeding 250 acres in area. This strip can be widened if there are particular reasons to protect the natural environment and the landscape.

This approach to borders also led the Regional Green Spaces Agency<sup>(5)</sup> to extend its acquisition boundaries that were initially limited to woodland itself, in order to incorporate, particularly for landscape reasons, the surrounding agricultural land. This is the case around the massifs of La Roche-Guyon, Bréviande and Rosny-sur-Seine.

(5) An agency under the Regional council, whose mission is to preserve — especially by acquisition — natural and green spaces in the region.

# Requalifying the communication routes and the town entry roads



**R**oads, motorways and railways are forms of infrastructure whose basic technical design rarely takes the countryside into account. They raise considerable problems of integration, particularly as they are substantial and carry heavy traffic. Some of the problems are related to the land actually occupied, others to its fringes.

**Communication routes create their own landscape, which is organised independently of the surrounding area.** They produce a physical and visible dividing effect in the land they traverse (owing to traffic and noise, but also, in certain cases, as a result of fences and embankments). The transitions with urban public space are rarely resolved, because their recent design excludes the pedestrian. Their fringes suffer from the adverse effects of pollution, and evolve without any overall plan or urban project: buildings are heterogeneous, banal and of little value. The «shop window» effect sought by firms that choose sites along busy roads make this dissonance worse with a proliferation of hoardings and signs.

**Motorways, road bypasses and railways are convoluted spaces, closed upon themselves:** the lack of ordinary road access along a highway causes nearby businesses to turn their backs on it although without eliminating the shop window effect and all that it entails. Embankments and cuttings add a visual break to the physical division caused by traffic and fences; the profusion of signs and lamp standards ruins the legibility of the landscape. Planted areas often do not amount to more than infill for waste land, and remain puny, especially on the poor dry earth of embankments and cuttings; at the very best they create a uniform green corridor, with no identity from one region to the next, and no distant views.

**Most highways are former royal ways which have a considerable heritage value, often forgotten.** They were built following the relief, and frequently the «lines of force» of the site, creating extensive views, sometimes focused on a monument (such as a bell tower or obelisk). In the past they have been responsible for rural land divisions and the urban fabric developing around them, and the growth of farms, châteaux, coach stops and inns. Finally and most important, they were nearly all planted with lines of trees; this gave them an unequalled landscape quality, in marking localities, in the legibility of their structure, in delineating the space proper to the road. Road widening schemes and the conversion of the old roads into highways have destroyed most of the avenues of trees and have resulted in many historic buildings being abandoned. Route changes, bypasses and roundabouts have wiped out views and caused the loss of identifying marks. The last interesting buildings have lost out to the general degrading of values.

**It is where major roads enter towns that damage to the landscape is worst:** as is the case with any highway, their landscape, heritage value and integration are spoilt by their adaptation to traffic; but their particular case is worsened by uncontrolled urbanisation in the shape of industrial estates and large shopping centres, and by the welter of advertising hoardings and signs. The very nature of town entry points gives importance to the issue, because they provide the first image of the town to anyone entering by road.

As regards the **urban environment**, it is traversed and structured by large numbers of national, departmental and communal roads, which turn into avenues, boulevards and streets. These roads retain their service role, but the massive increase in traffic alone is creating an effect of urban division (this applies particularly to major national roads in the in-



ner suburbs, like the N20 between the Porte d'Orléans and Massy, or the N4 at Joinville and Champigny).

## A fresh look at the major of communication routes

The major communication routes, whether in town or the open country, have long followed their own logic and showed little concern for non-functional matters. The creation of new roads has shown a notable change, but a great deal remains to be done in requalifying or even revaluing a whole series of roads designed without consideration of their substantial structural function as regards space, the landscape, and life in the town and countryside they pass through today.

### *Limiting the dividing effects of rapid transit ways*

We shall use the term **rapid transit ways** to cover motorways, expressways, urban roads expressways, bypasses and railways. All these communication routes, although functionally different, **share certain features: there is no direct access to them**, frequently their **profile is remote from the natural lie of the land** (by being built on embankments or in cuttings) and even more frequently they are fenced. All these features make them alien to the countryside they traverse, which they divide both visually and physically. The division tends to be made worse by the increasing number of noise barriers, which meet an obvious need but which are frequently not well integrated. There are many ways of dealing with the problem of division. In addition, it is difficult to separate the functional approach from the landscape approach, so closely are the two linked.

**In deep cuttings, the road or railway can be covered**, converting the open cutting into a covered trench. This expensive solution is only used where traffic is very intense in a dense urban environment having a function of centrality (for example the A1 motorway in la Plaine-Saint-Denis). Many municipalities have asked for it to be done, although they cannot hope to see their request granted except in the far distant future. Also, if the road is not deep enough (6 to 7 metres), although the noise pro-

blem can be resolved in this way, the dividing effect is almost unaffected, because the roof will be above ground level: this is the case of the A12 at Bois-d'Arcy.

As to lightweight roofs, which merely screen the noise, they only partly resolve the problem of urban division. Thus the roof over the A13 at Mantes-la-Ville serves merely to re-establish the continuity of transverse roads. Generally speaking its appearance is poorly integrated with the materials and forms of the urban space. Consideration should be given to different ways of limiting the dividing effect of lightweight roofs, by integrating them visually (plantations on light or thin soil, creeping plants rooted in solid ground around the roof, lightweight fences<sup>(1)</sup>), by increasing the number of footbridges (at the same level as the roof, so that the inaccessible parts just look like plant beds); in this way lateral roads can be built which compensate for the transverse division by facilitating traffic alongside the main road.

**New crossing points can be created**, at least footbridges for pedestrians and cyclists, which have the advantage of being cheaper than road bridges. Interesting examples already exist, such as in Noisy-le-Grand on the A4 motorway. This type of solution should be considered more frequently on existing roads.

**The dividing effect of noise barriers can be diminished by using transparent screens.** Unfortunately these are being used less and less by the Departmental Divisions for Public Works (DDEs) because they get dirty, are subject to vandalism, and therefore require regular maintenance. This reticence is also related to the more general problem of the shortage of resources for maintenance. For noise barriers just as for vegetation, no improvement in the road landscape will be possible without enhanced attention to maintenance. In the meantime, an attempt should be made to avoid giving up completely on transparent screens, at least at the more sensitive spots: where there are crossover roads and in valleys. Whenever the dividing effect due to noise barriers is unavoidable, there is a good case for doing some «healing» on the resulting scar: recasting the landscape on both sides, restoring depth and articulating the outer surface with the landscape outside. Well-designed plantations

(1) A lightweight roof can carry a limited load, and thus withstand a risk of trespassers. A thin fence, or even a simple parapet, can therefore be sufficient. What it cannot withstand is the loading corresponding to a crowd of people, a possibility for which allowance must be made where a roof is entirely open to the public, which must therefore be of heavy construction

can play a significant role in this connection: climbing plants on the barriers, trees in front of it, vegetation on embankments, and so on. It is important both to the user and for those living nearby that vegetation should not recreate a green wall, but restore the effect of depth, with foregrounds and backgrounds (for example spaced plantations in front of a continuous hedge or of a wall covered with climbing plants).

**The position of the fence can also reduce the dividing effect.** Placed on top of an embankment or of a noise mound, it is less visible for those living nearby than when it is at the foot of the slope. This location does not prevent maintenance of the slope by the same service, which can be done more effectively from below than from the roadway.

### *Restoring unity of structures beside the main communication routes*

**The lack of articulation of structures, particularly noise barriers,** and their poor state of maintenance, is a recurrent problem beside main communication routes (mainly roads, but also railways). Contract supervision, handled by the subdivisions of the departmental development directorates, is broken down in both space and time because road works are organised in operational tranches, mostly with no real overall architectural and landscape design. The result is a patchwork of noise barriers that have nothing in common (as on the Paris *Boulevard Périphérique* or the A6 motorway). The lack of harmony is not only between successive operations but even within a given operation: as a rule nothing is done about the ends of barriers, support walls, crash barriers and fences, and even less as regards the links between these different structures.

Thus greater attention should be paid to the detail of road structures, with a view to simplicity and restraint. This is an important issue because the growth of traffic and pollution is making noise barriers increasingly necessary. According to new noise standards now under preparation, the threshold at which barriers are introduced will be reduced from 65 to 60 dB(A). This will have the result of increasing the height of the screens: the impact on the landscape can only be enhanced.

### *Improving relief patterns and motorway plantations*

Although a great deal of effort has been made to «green up» road embankments, **the plant species introduced along main roads and railways are often unsuitable**, for example shrubs that are too low for the scale of the site and apparently merge into indistinguishable masses at high speed. They require substantial maintenance, trap airborne waste, and make it difficult for the maintenance services to pass. These plantings are on embankments and in cuttings, where the topsoil is poor, containing little organic matter, as well as being compacted and dry. Frequently they are maintained inadequately, or badly (particularly being pruned too severely, even where allowing trees to spread would not raise any problem of safety), which often weakens them. The need to widen roads, where the land available in the existing strip is insufficient, eats into the fringes — usually planted — thus modifying what little «scar healing» exists.

The importance of vegetation along roadsides no longer requires demonstration. Through its «40 million trees» operation, the Ile-de-France region encourages project managers to plant trees, by contributing to the cost. But it is also a matter of improving the technical quality of the relief and of the plantations, to ensure that they have a sufficiently strong presence in the landscape. For motorways, a few essential principles have been worked out that can be adapted to every site. These have been applied in particular in the pilot landscape requalification operation on the A3 motorway at the Porte de Bagnolet (Paris) and the Rosny interchange, carried out by the DDE of Seine-Saint-Denis with funding from the Region and technical support from the IAURIF<sup>(2)</sup>.

These principles are intended mainly to **give priority along road fringes to simple developments that have a high structural value**: large trees planted over a low stratum, limiting the amount of shrubs which raise problems of maintenance; trees planted in lines, including along the motorways; a simple and natural form of relief, notably by widening embankments in order to make them less steep, rounding them off, filling in behind concrete crash barriers, and so on; noise barriers with a restrained design and compatible with other structures.

It is also important to **determine for each main road** (radial, orbital routes, etc.) a vi-

(2) These principles are described in a note prepared by the IAURIF, *Recommandations pour l'aménagement paysager des autoroutes en Ile-de-France* (P.-M. Tricaud, DAE, 1995, unpublished), and in the document reporting on the pilot operation: *Requalification paysagère de l'autoroute A3. Étude de définition d'ensemble*, Paris, IAURIF, 1996, pages 25-28.



**sual identity** by means of a common theme (or a small number of themes) in dealing with plantations (and structures) punctuating the route, modulated according to local situations or matching local developments.

### **Rehabilitating the national and departmental roads**

With the passage of time, national and departmental roads have really become a kind of heritage. Based largely upon the major routes of the 17th and 18th centuries, this dense and continuous network was one of the original features of the Ile-de-France, tracing out in the landscape the political and administrative centralisation of the old regime and the aesthetic signature of the centuries that saw its creation. **These roads, lined with trees and bordered by farms, relay-posts and châteaux, played a structural role in the urban and rural landscape.** Their recent evolution (see the chapter «Recent evolution in the landscapes») shows how this heritage is threatened today.

Over the last 20 to 30 years, countless roadside trees have been felled, initially for reasons of safety, and subsequently to allow road widening. Although the rate of felling has slowed down over the last ten years, and a number of ministerial circular letters have been produced aimed at improving the management of roadside trees and replanting them whenever possible, the old lines of continuity are disappearing and new plantations cannot hope to replace them.

The lifetime of the trees is also being shortened by the compacting of the ground, the shortage of water, winter salting, impacts and the pruning of large branches that allow diseases to enter. Weakened or ageing, they are felled; replanting them is fraught with difficulties, because the current safety standards cannot be applied with the size of strip currently available (trees must be at least 4 metres from the road, and there are requirements as regards their location with respect to ditches), and farmers are often opposed.

**There are two kinds of possible solution: first to acquire land, and secondly to introduce easements by agreement.** The acquisition of additional land appears to raise problems of negotiation with farmers when it is applied (the minimum is 6 m: 4 m from the roadway to the tree, 2 m from the tree to the boundary; a width of 8 to 10 metres permits long-term management in the best possible conditions):

the Department of Seine-et-Marne was able to use this procedure in only one case, the road giving access to the château of Vaux-le-Vicomte.

The introduction of contracts or easements by agreement for planted areas on land belonging to those living nearby mutually commits those and the project managers. The former may either have to plant trees themselves, or allow tree planting on their land and maintain them for a given term (e. g. 25 years). The United Kingdom applies this system in

the case of noise mounds, when space is limited within the road strip. Quite apart from its landscaping value, this approach can cut costs because noise barriers are unnecessary. This principle can be adapted to trees lining roads. Approaches of this type have been proposed by the IAURIF for plantations along roads that intersect on the plateau of Saclay, and have been implemented by the District (assembly of communes) on one of these, the N306.

The different approaches are not always isolated, and can be arranged through management schemes. In Seine-et-Marne, the CAUE, the DDE and the General Council (departmental authority) have set up a management scheme for plantations beside roads. In the Department of Essonne, this scheme has taken the form of a methodological guide to the management of green areas along departmental roads (*Guide méthodologique de gestion des dépendances vertes des routes départementales*) produced by the General Council.

**The evolution of national and departmental roads since the 1960s has raised another problem: the necessary adaptation of the infrastructure to modern standards of safety and comfort involves the construction of bypasses and multiple interchanges.** These are designed using speed-based standards: they are becoming straighter and more complex, and introduce a new geometry into the landscape (see also the next chapter). In this way the inherited character of a route is lost in the particular locality, like the Villeneuve-le-Comte bypass on the edge of the forest of Crécy. It should be possible to take special measures to adapt road standards to existing routes. The understanding of the landscape is made more complex by a new phenomenon: the growing number of roundabouts that cause one to lose the thread of any possible pattern. The type of break they create is of a new kind: neither urban (not on the scale of the pedestrian or cyclist, usually out of town), nor rural (no visual continuity, no insertion into the subdivisions of the landscape, no adaptation to traffic flow, and so on). The next chapter makes recommendations for a limitation in the number of roundabouts and for a better care in their composition.

### **Restoring life to historic buildings along main roads**

Although the green heritage is the most extensive and most visible along roads, the heritage of buildings, less well known, is significant and is an important relic of history. **During the three or more centuries during which the royal ways were the main means of communication in the country, many buildings were built along them to take advantage of their service.** This is of course the case of the relay-posts and inns: many remain, still in use or abandoned, along the N20 from Arpajon to beyond the borders of the region; on the N6 to the north of Melun, a sculp-

ture at a restaurant reminds you the location of «*l'affaire du courrier de Lyon*» (a famous criminal affair of the 18th century); others remain, now buried in the heterogeneous fabric along town entry roads, for example on the N10 at Coignières or the N13 at la Maladrerie de Poissy. There are also châteaux, as on the N7 between Juvisy and Corbeil, along the king's way from Versailles to Fontainebleau, or the domain of Jeurre beside the N20 at Étampes. There are also farms, as on the N20 to the south of Arpajon. Away from the royal ways, old buildings that were originally isolated (particularly farms) now find themselves besides new roads.

Many of these buildings are now in ruins, often abandoned owing to road pollution or the disappearance of any direct access (like the lodges at the entrance to the park of Grégy-sur-Yerre, along the *Francilienne* motorway) or degraded by recent developments and advertising hoardings. It is essential to increase awareness of the value of all this heritage, a process that should be followed by rehabilitation schemes. As for any historic building, the continuity of rehabilitation depends on finding a purpose that will make it viable. For many of them, it is natural to function as an hotel or restaurant, and this is still done in many cases.

Rehabilitating a historic building is expensive, and usually viable only if it can be put to some high-grade purpose (like the Hyverneaux farm at Lésigny, threatened with abandonment after finding itself beside the *Francilienne* motorway, then restored as a hotel when the Réveillon golf course was built) or used directly by a local authority (like the «*Commanderie des templiers de la Villedieu*» at Élan-court, along the N10, the old royal way from Paris to Chartres). In other cases, assistance will have to be found. **It is possible to imagine large farms or post relay stations being restored as service areas.** In many cases their size is such — subject to an original architectural scheme — that they would lend themselves to the establishment of a service station, mini-market and all the conveniences found in this type of facility. Such schemes would certainly modify the appearance of these buildings, but this would be preferable to their falling into ruin.

**Rehabilitation schemes of this kind should form part of an overall project on a scale commensurate with the entire road, providing for service areas to be moved to these buildings, with access in proper conditions of safety, the control of advertising hoardings and of course the replanting of trees along the road.**

## Restoring «urbanity» to urban roads

When entering a town, the road should become an urban road, a transformation that should modify its characteristics, but also the way in which its fringes are dealt with.

## Restoring the «town entry roads» to the town

The question of town entry roads is not specific to the Ile-de-France. It exists on the major national roads, but also along a few departmental roads: urbanisation of the «shoe box» type extending over several kilometres, a proliferation of signs, often associated with a decline in the standards of the road fringes. Yet these spaces are the first image the town provides to whoever enters by road; accordingly the issue is a major one in terms of image, touristic value and local identity; sometimes one wonders whether one is entering a town or just a commercial centre.

**Although the term «town entry road» has been generalised in France to any uncontrolled linear urbanisation, the most significant cases in Ile-de-France do in fact concern the entry to the central conurbation along old royal ways, the most significant of the region** (the N10 at Coignières and Trappes, N20 at Monthléry and Linas, N13 at Orgeval and Chambourcy).

Beside recently built roads, whether motorways or bypasses, businesses and commercial centres appear not only for legitimate functional reasons, but also to benefit from the shop window effect. This effect is tending to spread: in town planning schemes, the areas set aside for business parks are preferentially along main roads. In fact this approach rarely encompasses a concern for development: the areas bordering the road frequently become car parks and any planted areas are rare.

**The answers to the problem of town entry roads are rarely related merely to landscape development. It is a true problem of urban formation,** which was raised by the report produced by senator Dupont<sup>(3)</sup>. Today there are a number of parliamentary Acts that serve as a basis for attempts to provide a remedy (see also the chapter «Rehabilitating districts» above):

- The 1979 Act on advertising, which allows the implementation of communal regulations that can lead to Areas of Restricted Advertising (ZPR);
- The decree of 24 October 1996 on advertising in towns and signs, specifying the content of the statement prior to any installation of advertising to be sent to the Prefect and mayor of a commune (these provisions concern hoardings measuring 3 m x 4 m together with preliminary signs whose dimensions exceed 1 m in height or 1.50 m in width);
- The «Barnier» Act (Act No. 95.101 of 2 February 1995), in its article 52 drawn up following the «Dupont amendment», which forbids urbanisation within 100 m of motorways and expressways, 75 m from other roads carrying heavy traffic (compared with 50 and 35 m respectively that applied previously, according to the urban law), unless the commune carries out a specific

(3) Ambroise Dupont, senator from Calvados: *Les entrées de villes ou redonner le goût de urbanisme*. Report to Mr. Michel Barnier, Minister of Environment and Mr. Bernard Bosson, minister of Development, October 1994.



architectural and landscape project and implements it through its land use plan (POS).

On 13 May 1996 the Town Planning Directorate (DAU) in the Ministry of Development sent a circular letter to the DDEs in order to explain and detail the ways in which this legislation should be applied. In support of these provisions, the government embarked upon a partnership approach, creating the National Committee on Town Entry Roads, in order to involve all concerned from the public and private sectors: the National Committee of Shopping Centres (CNCC), the Ministry of Development, the Federation of Advertising Firms, French Railways, and so on.

The Departments seek to assist the different developers and the communes through advisory documents: they draw up a list of the roads concerned and, implicitly, of the communes who are supposed to react accordingly in their town planning schemes; the DDE of Seine-et-Marne produces a guide for the attention of the communes on the application of the Barnier Act. The CAUE and the DDE have also issued a brochure and a cassette to raise awareness about «town entry roads».

Beyond these proposals (which are based on existing instruments), one could envisage the introduction of specific legislation aimed at long-term management, inspired by that on quarries. Indeed it is well known that most commercial establishments at town entries are designed to be amortised over a short period (10 to 15 years) and that when some of them are abandoned, turning into «commercial wastelands», the local authorities are left as helpless as they were previously when faced with industrial wastelands or abandoned quarries. The Dupont report recommends that instruments to prevent wasteland should be created. Thus one might imagine granting a building permit of limited duration, including an obligation, on expiry of this period, to restore the premises or convert them into a more urban structure (refurbishing buildings, their surroundings, planted areas and the fences with high-grade materials, with rules governing layout and alignment, less advertising and so on). It would perhaps be easier to get firms to commit themselves to abide by integration constraints over a period of time, which would spread the cost, than to impose such constraints on them from the outset.

### **Restoring to urban roads their character as a multi-functional public space**

Towns and traffic are not in opposition. Indeed urban roads are those which best combine service and transit, establishment and movement. Boulevards and avenues are frequently still agreeable roads where it is pleasant to walk. However noise and pollution are increasingly a handicap. To this new dividing effect created by the increase of traffic in towns, there are three possible answers:

**Traffic can be restructured to avoid the difficult stretches.** This is the function of traffic schemes. The impact on the countryside is indirect: buildings decay less because there is less pollution and the population rediscovers a more quiet environment.

**These roads can be requalified by redeveloping the space they occupy** (planted areas, service roads and car parking, safety, more importance given to the pedestrian and the cyclist), while maintaining traffic flow. The impact on the landscape is global: every aspect of the road is transformed. This type of road is frequently called an «urban boulevard», with reference to the traditional great boulevards<sup>(4)</sup>. There are few examples in Ile-de-France: the D75 in Plessis-Robinson is a success but only partially so. The notion of an urban boulevard is developing: it is one of the funding areas selected in the Contract for the government-region plan (in the new towns and development poles).

**Outside the urban area it is possible to create a bypass** (considered here as a new project, and dealt with in the next chapter).

The road diverted in this way can and should be the subject of requalification<sup>(5)</sup> (example: the old N307 in Noisy-le-Roi). The impact on the landscape is one of restructuring: the entire public space changes appearance.

(4) See Geneviève Dubois-Taine, *Les boulevards urbains. Contribution à une politique de la ville*. Paris, Presses de l'ENPC, 1990. Also see the idea of an urban boulevard in new projects in the following chapter «Designing the linear infrastructure».

(5) This is one conclusion of the initial reviews of the *Dossiers de Voirie d'Agglomération* produced by the Study and Research Centre for Transport and Urban Planning (CERTU) in 1993. The report on regional action for air quality, voted by the Regional Council on 28 June 1995, referred to this necessity.

# Designing the linear infrastructure



**L**inear infrastructure, both roads and railways, is designed to connect people and towns. Between towns, where they are not seen as connecting, they cut through the living earth, creating scars that are difficult to heal. The insertion of roads and railways into the landscape raises three kinds of problem: drawing a line across the landscape, healing the resulting scar, and managing the transitions to the urban environment. There is another type of linear infrastructure that marks the landscape: high or very high voltage power lines. Their impact is no less significant and the need for insertion no less great.

## *Drawing a line across the landscape*

As we have seen, the structure of the regional landscape is made up of a subtle relief; its lines are sensitive, and the way in which it is subdivided forms a background fabric of land on which every development leaves its imprint to a greater or lesser extent. The classic structure of routes has shaped the face of the region over a very long period. First came the canals; the railways and the motorway system have introduced other lines. The latest arrivals, the high-tension power lines, have a more weblike structure but mark the landscape nonetheless with their pylons and their cuttings across woodland and forest. A new type of geometry emerges, where the relationship to the site is subordinated to the logic of linkage and circulation. In this situation, drawing a line becomes a challenge, because the issue is to respect the principal directions of the landscape, to avoid perturbing the unity of a site, while respecting the existing land divisions, and matching the morphology of the land. Of course modern routes can only do all this to a very partial extent. Accordingly, more emphasis is placed on healing the immediate scars.

It is possible to perceive any infrastructure in many different ways, depending upon whether

one is a user — within the road space — someone who lives near it, an onlooker or someone who lives in a region. As far as high voltage power lines are concerned, one can only be a spectator; for the railway, the user has a uniquely lateral vision; on the road the driver's view is essentially forward. The opposed views of user and onlooker may sometimes become contradictory: indeed the disamenities today are such that those living nearby demand that many stretches should be placed in cuttings or even underground. From the other point of view, watching the landscape pass by can not only be agreeable, but may also contribute to one's knowledge and understanding of the region. And for the landscape traversed, the open cutting may prove to be the worst solution: there is a considerable visual impact apart from perpendicular views, interference with streams (which are diverted or dreinstated through siphons), and a lowered profile in valleys, which results in embankments rather than bridges. A surface path, following the undulations of the relief and crossing valleys on viaducts, fits better into the landscape. For the user the sequences are more legible, with key points such as passes, peaks and hills.

Drawing a line in the landscape is primarily a task of matching scales, between the infrastructure and the varying scales of the landscape. A project such as the high-speed train (TGV) crosses many valleys and many plateaux, while a simple bypass of a few kilometres will limit its impact to one or two more modest landscape entities. However the sensitivity of the landscape is not thereby less great, because it is linked to the quality of the site and not to the infrastructure.

## *Healing the scar of roads and railways*

Infrastructure alignments depend on traffic speed. The higher the speed, the straighter the alignment both vertically and horizontally. The difference between the characteristics of the



### Scale of linear infrastructure (excluding electric power lines)

	Length of projects (examples)	Mean width
High-Speed Train (TGV)	TGV-Est: 300 miles, of which 30 miles in Ile-de-France	Standard base: 14 m + embankment or cutting
Motorways and expressways	A14 from la Défense to Orgeval: 12 miles	Minimum 22 m (two carriageways + hard shoulder) + embankments or cuttings
	N12, Houdan-Bozainville bypass: 7.5 miles	
National roads and ordinary departmental roads	D98, Saint-Nom-la-Bretèche and Villepreux bypass: 3.5 miles	From 10 to 30 m including verges

### Radius of curvature of linear infrastructure (excluding electric power lines)

Type	Maximum speed	Minimum radius of curvature
TGV	170 to 200 m.p.h	several miles
Motorways	70 to 80 m.p.h	1/3 to 1/2 mile
Roads	40 to 60 m.p.h	1/6 to 1/2 mile

alignment and the local geometry creates the visual division.

Straightened vertical alignments impose embankments and cuttings, which create a physical break. Substantial inequalities in the relief require bridges and viaducts to be built. Whereas embankments and cuttings have a negative impact on the landscape, bridges and viaducts are architectural monuments which, if done well, can provide the opportunity to give a site landscape value or reveal its qualities.

Straightened horizontal alignments cause a break in the land division, which results in land being wasted. It is then that the problem of «healing» arises.

**In agricultural areas**, this may lead to the regrouping of land, the landscape effects of which are not well controlled. If the cut-off parcels are small, some can be transferred to the adjoining larger parcels. In every other case, the healing process is only possible by planting trees, etc., which must be carefully selected if they are to be suitable.

**In urban areas**, a simple patch of green is not enough to heal the scar, unless it is large

enough to become a public area. For example, along the «*Boulevard Périphérique*» in the 17th arrondissement of Paris, numerous parks and sports facilities form a continuous strip, separating it from the surrounding buildings; these spaces are no longer mere «landscaping», but they actually fulfil an urban role.

### Handling the transitions between the town, the landscape and the road

The interface between infrastructure and the town is certainly the most delicate aspect in any attempt at insertion: it goes well beyond the issue of compensatory landscaping works, because all the scales must be taken into account at the same time, with co-ordination of engineering design, architecture, town planning and landscaping.

There is a substantial change of scale between the routes followed by major infrastructure and the urban network. Accordingly, **the only way to deal with it involves a process of composition: it is a matter of qualifying the interstitial spaces, giving them form and identity, while using them as an articulation between the town and the road.** This means working on a variable amount of urban space. For a road, this may range from developing the fringes (embankments, or planted areas), designing a side road, reallocating waste land, to complete restructuring of town blocks.

Specific structures such as noise barriers and roofs are particularly sensitive. We saw in the previous chapter the extent to which barriers can accentuate the break in the landscape. Thus, an essential prerequisite to handling the transition between road and town in new projects is the ability to draw up an overall insertion scheme that takes into account every one of the road features.

A particular interface is the roundabout, which has been introduced almost everywhere in France since the early 1990s. As far as landscape is concerned, there is nothing wrong with the principle of roundabouts, but the way they are managed and the increase in their number may be contested. A succession of roundabouts causes the driver to lose the natural orientation markers and, to some extent, appreciable contact with the places he travels through. They are used increasingly on town entry roads since they are a way of slowing

down the traffic. Indeed they sometimes have a «windowbox» effect. It is therefore in the urban fringe sectors that some skill is called for in determining where roundabouts should be introduced, according to their role in the urban network.

From the design standpoint, there is every advantage in composing rather than decorating a roundabout. It is a question of adopting a few simple principles: straightening the approach roads, clearing the central island, surrounding the roundabout by an outer ring of trees, and introducing identification marks allowing the user to orientate him or herself.

### **Implementing an overall project for a route**

The problems already mentioned for roads, as regards insertion, resolving divisions and developing fringes, show that the relationship between the infrastructure and the country through which it passes cannot be dealt with only in terms of insertion or compensatory measures, as is too frequently the case. On the contrary, **those examples that stand out for the quality of their insertion into the landscape prove the need for a general attitude to the problems raised, through a project approach** — in the architectural or landscape sense of the term, in other words an approach that is comprehensive, iterative and inventive.

**As far as roads are concerned**, it is important to consider the historic example of the parkways in the United States, with their broad strip of land, wide central reservation and abundant vegetation. This type of road calls for a great deal of land and considerable maintenance of the planted areas. However some of its principles are still transferable, notably the design of the road as a unitary project, in which the engineer, the landscape architect and the architect design the project together (unlike the usual situation where the engineer alone controls the project geometry, the other designers being limited to advising him or designing the fringes). The involvement of truly multidisciplinary design teams was also responsible for the quality of integration of the Barcelona ring roads built at the end of the 1980s, a quality that extends from insertion into the urban network through to the detail of the linkages between structures, etc.

The use of a preliminary landscape scheme (*Plan de paysage*) has resulted in projects of better quality than the average infrastructure built in France, whether for new projects (such as the two State motorways crossing the central massif, the A20 «*l'Occitane*» and A75 «*la Méridienne*») or for certain reinstated roads (e. g. the N12 as it encircles Rennes, and its exits<sup>(1)</sup>).

With regard to roads carrying heavy traffic, with a high level of safety and moderate speed, two concepts are now being developed to ensure satisfactory insertion into the site: in the conurbation, the «urban boulevard», in the outer suburbs, the «green way».

**The urban boulevard encompasses a great variety of situations<sup>(2)</sup>**. For the town planner, the model is that of the three *intra muros* Paris ring roads (the *Grands Boulevards*, the boulevards along the old wall of the *Fermiers Généraux* and those of the *Maréchaux*), in that they combine heavy traffic with service functions and a considerable degree of urban integration; for the road engineers, the model is rather that of the *Paris Boulevard Périphérique*, an urban expressway with speed limited to 80 km/h (50 mph) and many interchanges that are at a different levels (motorway-type). Between these two extremes, a new model is now emerging: this is a high-capacity urban road, with special lanes for public transport (trams or buses), with interchanges at the same level (roundabouts or traffic lights) or at different levels, but above all handled with great care at every interface with the urban fabric through which it passes. A good example is the project for the Intercommunal Boulevard of the Parisis (BIP) in the Val-d'Oise, and another is the project for the outer western ring road (V88) at Cergy-Pontoise.

**The green way (*voie verte*)**, for its part, **offers a gentler route geometry**, a finer «healing» of the edges, and recalls the need for a comprehensive landscape scheme<sup>(3)</sup>.

**As regards railways, most of today's main lines concern the TGV (High-Speed Train)**. Building infrastructure on this scale in the Ile-de-France situation involves thorough land-

(1) See Bruno Bourguet and Alain Bineau «Routes, bocages, paysage .. Conjonction rennaise». *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 112, December 1995, pages 57-76.

(2) See G. Dubois-Taine, *Les boulevards urbains* (op. cit.). See also the concept of an urban boulevard in new projects, in the previous chapter «Reinstating the communication routes».

(3) See *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 112, pages 51-62, December 1995.



scape integration studies, resulting in specific development proposals along ordinary stretches as well as at sensitive spots<sup>(4)</sup>. We have seen that running such lines underground in urban areas provided the opportunity to introduce green corridors which have become real lines of force in the green networks of the central conurbation<sup>(5)</sup>. The other schemes, when not underground, concern special-lane public transport projects, such as the Saint-Denis-Bobigny tram service or that in the Val-de-Seine. These projects make a considerable contribution to upgrading the districts they serve, by redeveloping the public space they generate. They also concern the major rail bypasses used for intersuburban commuting and commuting between new towns. These bypass lines will utilise existing track over the greater part of their route, which they will seek to restructure and even reactivate. As regards the new stretches, their implementation should be preceded by the same overall and integrated spatial and topical approaches.

### **Grouping electric power lines and laying them underground**

The erection of high and very high voltage power lines is meeting growing resistance from people living nearby and from the local authorities concerned. The arrival of electricity, long a sign of progress and now commonplace, is still accepted at the local level when it involves low or intermediate voltage lines, but it is rejected when a new link in a national or regional grid is to be constructed to carry energy. Just like the roads and railways, whatever passes through an area without immediate and visible benefit for that area is encountering growing objections from the public and its elected representatives. The policies to be undertaken do not really differ for electricity distribution (intermediate and low voltage, which is the most extensive linear network) and transmission (high and very high voltage). Electricity distribution involves small landscape entities, from streets where the power lines can be laid underground or grouped together (this is increasingly common) to the rural landscape which, as far as possible, must not be overlaid with a mesh of wires that add to — without necessarily being co-ordinated with — the telephone lines. Transmission concerns the open landscape of plateaux, valleys and forests, but also the urban fringes where it fills in the gaps or runs overhead. The technocratic approach, once all-powerful and guided by the policy of energy independence, is today controlled, particularly since the national electricity utility (*Électricité de France*) signed an agreement with the State modifying the procedures for planning new electrical installations and setting objectives for placing lines underground<sup>(6)</sup>. The provisions of this agreement include the formulation of joint master schemes at the level of the region and département, extending the public inquiry approach from the sole very high voltage to high voltage lines, spec-

ding up the programme to place lines underground (at national level, this implies doubling the mileage of underground HV lines, running VHV lines in the existing corridors, holding the mileage of overhead NV lines at the current level, placing at least 5000 km of LV lines a year underground, compared with 3500 km a year in 1992). Prefects are also requested to list landscape «black spots». The Ile-de-France Region is cofinancing — at the same level as *Électricité de France* (EDF) — some of the schemes to place high voltage lines underground, under the terms of the agreement the two partners signed in 1993. The region has also funded and supervised jointly with EDF a study of the impact of high and very high voltage lines on the natural and urban landscapes crossed<sup>(7)</sup>. Whether distribution or transmission is involved, the landscape concerns should be the same, even if the means to be applied per kilometre are disproportionate.

The relevant decisions should be preceded by the same overall and integrated approaches: although there have been some sensible changes as regards high and very high voltage lines (EDF has even launched an international competition for the design of its future pylons), it is clear that such is not always the case for distribution which, not being subject to the same reticence on the part of those living nearby and the local authorities, occasionally suffers from some neglect in the choice of routes and the characteristics of lines. The progress made with the distribution system, for example the changes in the size and colour of meters mounted on the walls of town houses, should be continued in order to improve their impact on the landscape we all experience daily.

(4) Several of these developments were described in *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 112, December 1995, pages 19-40.

(5) See *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 111, November 1995, pages 87-102.

(6) See *Les Cahiers de l'IAURIF* (IAURIF Journal), No. 112, December 1995, pages 6-18

(7) *Les incidences des lignes EDF haute tension sur l'environnement en Ile-de-France*, IAURIF, November 1995. This study also covers transformer stations.

# Using reliefs and views to advantage



**T**he Ile-de-France is not a flat region. Although the region is dominated by flat stretches, they are all at different sea-levels. This is what differentiates the relief of a plateau from that of a plain. Their difference in height forms lines of steep slopes, gentle slopes or hills in some places and, in others, outliers, standing out like islands of superimposed plateaux. Seen from below, the heights create backgrounds making the geography legible, providing landmarks and outlining the horizon. This type of structure on successive plateaux separated by slopes affords views which cannot be seen in flat open country and provides much better access to these views than in mountainous areas.

Certain slopes face far horizons, as is the case for the contoured tip of Gâtinais (extension of the Beauce plateau) above the Bière plain (start of the Brie plateau before the Seine valley), the Meudon ledge above Paris, and the outliers (Montmartre, Aulnay, Goële...). Others make up the sides of valleys. Compared to other types of relief, valleys present a very special situation: two hillsides face to face form a linear whole; a valley is indissociable from the water course which drain it and it offers a rich diversity of rural and urban environments and the symbolic presence of water; finally, valleys have always been a point of concentration for communication, activity and development. They are rich in history and potential, but not devoid of pressure or threats.

## Enhancing summits, slopes and lookout points

**High points are among the most impressive features of a landscape, rich in symbolism and imagery<sup>(1)</sup>.** They are landmarks, borders and watersheds. They also have a traditionally religious identity, not so much because they are closer to the sky (and heaven?)

but because they are separated from the world by the climb, and because of their commanding position. And they command by the view: they look out over the world, always offering striking panoramic vistas. The wide or panoramic view is fundamental to the very notion of landscape.

Sanctuaries were often built in recognition of the religious value of high points — the churches and calvaries that are to be found there (e. g. Montmartre or Doue), generally represent the «Christianisation» of an earlier sanctuary. High points have been put to other uses, especially those taking advantage of their dominating position, which makes them ideal as military strongholds and observation posts. Examples of this range from the Gallic and, later, Roman oppida (such as «Caesar's Camp» in the Montmorency forest) to the 19th-century forts surrounding Paris. They have also had utility roles, whether as sites for mills exploiting their exposure to wind, or for reservoirs and water towers taking advantage of gravity, or for telecommunication installations making use of their unobstructed position (from the Chappe telegraph to television, mobile phone antennae and directional radio links...).

Some have been developed for the pleasure of their views — those, for example, from the terraces of chateaux (Saint Germain, Meudon, Champigny, Ecouen...). Terraces make particularly interesting use of high points as they not only improve access to lookout points, but also simultaneously present and highlight the view, the confines and the slopes beneath. The view is emphasised by balustrades and frequently framed by trees. The natural slope of the terrain is amplified by the slope of the supporting structure. The confines of a lookout are marked by a high surrounding wall and by the contrast between the impeccably maintained park above

(1) A more detailed analysis of the panoramic vista, its significance and its reconstitution in the garden can be found in the work by Augustin Berque *Les raisons du paysage*. Paris, Hazan, 1995 (pages 42-53 in particular), and in Serge Briffaud's «Le monde vu d'en haut. Une histoire de la vision panoramique». *Paysage et aménagement*, No. 31. June 1995.



and the more rugged slope below (as may be seen at Saint Cloud, or at Saint Germain before clearing was carried out, diminishing its character).

### *Conserving and enhancing major lookouts and their vistas*

Panoramic viewpoints, terraces and lookouts use the different configurations of high points to their best advantage. A high point may be an isolated mound with a fully panoramic view (Doue); a promontory with a wide — if not circular — view (Mont-Valérien, the Orxois hills...); a crest or a col looking out over opposite sides (the Goële hills, the Thoiry ridge); or the edge of a plateau with a visual field of almost 180° (Saint-Germain, for example).

Frequently, it is a break in the slope rather than the actual summit which offers the widest or most far-reaching views. The summit of a plateau, a watershed, is hardly perceptible, whereas its edge, a little further down, looks out over the valley or plain. Most of the forts were built on the edges of plateaux, known as «military ridges» (Noisy, Rosny, Nogent, Ivry, Montmorency, the battery of la Pointe at Palaiseau...). Occasionally, a promontory's best views can be obtained from well below the ridge (views from the terrace at Meudon, for example).

From an observer's standpoint, two different types of lookouts can be defined — «static» lookouts, at which a visitor can stop for a while and contemplate the view, and «dynamic» lookout points, from roads. The latter are not specially enhanced high points, but usually the simple consequence of driving past these points when travelling on the road. They do, however, add to the pleasure of a journey and to the understanding of the region traversed and an awareness of its thresholds. More transitory than static views, those offered from the roadway can nevertheless last long enough to draw attention to the landscape and impress it on the memory.

Among the most spectacular views are the frontal prospects from roads descending a slope: from the N12 at Pontchartrain, extended in perspective by the chateau; from the N36 at Meaux, centred on the cathedral; from the N3 to the east of Meaux, framed by the Montceaux forest; and from a more recent trunk road, the A13, at the exit from the Marly forest looking towards the Seine valley. Roads can also offer lateral views of a certain length — to one side when driving along a hillside road, and to both sides from along a ridge (the N14 offers reciprocal views through to the other side of the Seine valley).

Many lookout points can only be reached by taking a detour along rural tracks. Lookout spots are always one of the features when these tracks are marked itineraries (registered hiking trails or others). However, the vast majority of lookouts of this type are virtually unknown. Lookout points contribute to the Ile-de-France's rich diversity. But, although there are a great number of them, they are very ea-

sily damaged. And even if from on high everything in sight tends to be enhanced, the panorama is always made up of particularly fragile sites.

Several types of action can be undertaken: **first, the unique character of lookouts currently accessible to the public must be conserved, by preventing new buildings or plantations from constricting the views from them** (regulatory measures such as protection easements of viewing cones in the land use plans or more active measures such as the installation of transparent acoustic baffles around motorway lookout points).

**The quality of the landscape viewed from these lookout points must also be protected by stipulating that landscape plans of the viewed areas be drawn up as a prerequisite to town planning documents.**

Urban and road developers managing places which include outstanding lookouts may design their project in such a way as to enhance them — that was the case for the «major axis» Cergy-Pontoise and the for the business district of la Défense. They could also develop high quality public spaces, parks, walks and rest areas (over the last few years, the creation of public parks has provided new lookout points in Belleville, Mont-Valérien, the Champigny plateau and on the embankments of the A86 motorway in Thiais). These spaces, which will require major development, could be an opportunity to reintroduce the traditional form of the terrace. Support structures less costly than usual techniques could be installed by employing the techniques applied in public works (gabions, reinforced soil, «Texsol»...).

Other sites lend themselves well to the creation of large balconies overlooking the town: for example, the north slope of the Romainville plateau, the crests of the Rungis (Ivry) and Brie (Vitry-sur-Seine) plateaux, the heights of the Bièvre valley and the Issy-les-Moulineaux slopes. These sites already offer an outstanding continuity of greenery, which could be extended by creating new green spaces. They could be enhanced by installing hillside pedestrian pathways, dotted with lookout terraces — provided the views are not masked there also by high buildings. Landscaping works of hillside roads could be used to assist in the parallel development of cycling tracks and footpaths.

Moreover, the departmental divisions for development and motorway companies could pinpoint and define lookout points, as is already the case on many motorways. Municipalities should acquire well situated and easily accessible land to install rest areas with viewpoint indicators. Certain grants (especially from the regional council) could be used for this type of work.

### *Maintaining the hillsides*

High points look out over vast areas of land. And, conversely, they are seen from the land itself, for which they form the background and provide common landmarks. This is the case for each bend in the Seine, the Marne and the

Oise from the slopes on the concave side, and for the Goële hills on the horizon of the Plaine de France.

In the conurbation, the value of the hillsides as landmarks is reinforced by vegetation. As it is more difficult to build on a slope, much more greenery is to be found on the hillsides than in flat areas. Although there are breaks in it here and there, vegetation still predominates on hillsides. Even on a heavily built-up slope such as in the Val-de-Seine between Issy and Suresnes, the wooded masses of Brimborion and the Parc de Saint Cloud are strongly present in the landscape. Other slopes (Chennevières, Herblay) are dotted with houses; their gardens providing a strong presence of greenery. The balance is delicate however, and the increase in the density of construction could diminish the hillside's unique character.

Still other phenomena are threatening the hillsides. Buildings constructed at their feet could completely mask them out (the offices on the Saint Cloud hill are a good example of this). Even when buildings are less tall, the ridge behind the buildings still cannot be seen when viewed from some distance (normally from the other side of the river). Even without masking it, buildings can be high enough to affect the scale of the slope, whether they are at its foot, on the slope itself (Villeneuve-Saint-Georges Hospital), or on its ridge (Montereau urban development zone — ZUP). **The maintenance of planted continuity on hillsides and the control of the height of buildings in on or around them should be covered by strict regulations laid down in town planning documents.**

Outside urban zones, some slopes are under even greater threat. This is neither due to their land occupation nor their downgrading by added elements, but because they have been subjected to undercutting — an operation which, sometimes, entirely obliterates the relief. The excavation of linear infrastructures can make substantial cuts in the slopes (27 metres deep for 160 metres of opening for the TGV-Est project through the Butte de l'Aulnay).

Extraction and excavation activity can attack a slope even more severely, as is the case for the sand-covered slopes dominating the Brie (Gâtinais slopes, Butte de Doue... ) and for the gypsum mounds dominating the Plaine de France (Aulnay, Goële). The visual impact of a quarry may be reduced by situating it on the other side of a slope, or by excavating from the plateau side (the Larchant sand quarry is an example). In certain cases, the opening of the hillside can create a highly impressive landscape, as is the case for the Guerville cliff between Mézières and Mantes, which has replaced a slope where the chalk did not show through on the surface. A quarry on the side of a hill can create a strong visual impact, especially when it concerns an isolated mound or a range such as the Goële hills. This consideration should be taken into account in the elaboration of departmental quarry schemes, with the aim, in particular, of preserving the narrow hills which are in danger of disappearing with the present quarrying system.

## Maintaining the openness and continuity of valleys

**Valleys are diverse and complex environments made up of and affected by a large range of activities and other factors:** role of water, ecological value, farming activity, urban development... The Ile-de-France includes one major river (the Seine), two main tributaries (the Marne and the Oise), two tributaries of slightly lesser importance (the Yonne and the Loing), several medium-sized rivers (the Essonne, Juine, Orge, Yvette, Yerres, Petit and Grand Morin, Ourcq, and Epte) and a number of smaller rivers (the Lunain, Ecole, Aubette, Rémarde, Théroutanne, Petit Rosne, Mauldre, Vaucouleurs, Viosne...). The diversity is such that each river poses different problems and challenges.

Let us look at a few examples which show that, in this region, there are as many different cases as there are rivers: **The River Seine** is a major river which runs through the entire region from the south-east to the north-west, forming a strong element of the regional landscape, but the landscape characteristics change from upstream to downstream and between the rural and urban environments. **The Epte valley**, which marks the border of the region in the Vexin, stands out for the ecological richness associated with its humid environment and its hillsides. **The Bièvre valley** is, to the contrary, very urban in character, and it has become virtually invisible closer to Paris. **The Marne valley** is the main site for aggregate quarries in the Ile-de-France, giving it a very special identity with constantly changing landscapes. **The Yvette valley**, in the Haute vallée de Chevreuse regional nature park, is facing the discontinuance of farming activity and the subsequent progressive increase of waste land in the bottom of the valley. The conservation and upgrading of valley landscapes should be based on each valley's individual characteristics and identity<sup>2</sup>.

### *Landscape elements peculiar to valleys*

Valleys play a key role in the structuring of large landscapes via their relief, their loops, their humid zones and their vegetation.

**Relief is the principal element characterising a valley.** Relief reflects a valley's geology and geomorphologic history. Relief frequently varies from upstream to downstream of the river flowing through the valley. Examples of this can be seen in the Seine valley which has a wide and flat section in the Bassée and a steep relief downstream (by the cliffs of la Roche-Guyon, in particular). In a similar way, while the Yerres valley landscape is not particularly pro-

(2) The characteristics of the Ile-de-France valleys and the initiative of the Ile-de-France Regional authorities to maintain their natural and open spaces will be the subject of the next issue of *Les Cahiers de l'IAURIF* (IAURIF Journal), to be published in 1998.



nounced in its more rural sections, it starts to take on steeper contours in the urban zones. Despite the variations in a river as it progresses, its main landmarks are always the relief of the valley.

**The loops of a river create interesting landscape patterns**, as can be seen in several valleys in the Ile-de-France. Most of their slopes are dissymmetrical, i.e. a gentle slope on the inner side of the loops, where alluvial deposits accumulate, and steep on the outer side, where banks have been eroded by the centrifugal force of the current. The wide loops, alternating with large fields of crops on the convex side and wooded slopes on the concave side, are a strong feature of the Yerres valley, which establishes its identity in its downstream reaches. The Marne valley is also marked by wide loops, with quarrying operations and ecologically rich environments on the inner sides. River loops are so much a part of the identity of a valley that they have given their name to a projected nature park: the Parc Naturel Régional des Boucles (loops) de la Marne et de l'Ourcq.

**Humid zones are a further element marking the landscape** in some valleys. When the bottom of a valley is flat, it may comprise a number of broad bodies of water. In the Ile-de-France, several valleys or parts of valleys are marked by large ponds and humid zones: the Bassée upstream of the Seine valley, and the Essonne, Loing and Marne valleys. These artificially created bodies of water, usually resulting from recent (aggregate quarries) or former (peat bog) excavation activity, have gradually been transformed into zones of important ecological interest. Interest in avifauna has grown, for example, in the Bassée and the Loing valley. The humid zones of the Essonne valley are also extremely interesting from an ecological viewpoint. The landscape development approach must be differently perceived in continuously evolving zones where land occupation is often the result of transient activity. These zones may be conserved or transformed according to the type of landscape sought.

**The vegetation found in valleys also contributes to enhancing the landscape.** Riparian vegetation (that which grows on river banks — trees in particular), frequently dominated by alders, poplars, the grey-green of willows, marks the course of the river and makes it more easy to distinguish in the valley landscape. The role of vegetation is particularly important when the relief of the valley is not too pronounced. Certain species, such as poplar, are highly developed in several valleys: often intensively planted, they may have an impact on the water balance of the valley. Vegetation has substantially modified the physiognomy of some valleys, a fact which has met with varying degrees of approval. In the Ourcq valley, for example, the groves of poplars, which have been there for over a century, have now become an essential part of the valley's identity, whereas in the Viosne valley, the recent development of poplar groves has created a great deal of debate as to their value to the ecology and landscape.

## **Transformation and threats**

Valley landscapes, like any other landscapes, are constantly changing. But this change is perhaps more marked because of the wide variety of activities centred around a valley. The strategic location of villages and their development, communication routes and geological wealth, are all factors which have led to the transformation of valleys and brought pressure to bear on them.

**Extension of urbanisation:** in former times, the establishment of villages in valleys was linked to natural factors — the confluence of rivers, availability of spring water, zones above flood level... As time passed, urban extension has been undertaken in an increasingly irrational manner. Villages were not only extended in the direction of the valley, but also towards the river banks and sometimes on land prone to flooding. The hillsides became dotted with houses. Current uncontrolled urbanisation is one of the major threats to valleys and the unity of their landscapes.

**The standardisation of environments:** several factors threaten the diversity and wealth of valley environments. The extension of farming activity to the very edge of rivers has led to the disappearance of riverside trees. This development has also led to the drying out of certain humid zones in order to convert them to intensive agricultural use. Conversely, the disuse of farming management, particularly of livestock, led to a closing-in of landscapes through tree-planting and the increase in wasteland for future tree-planting.

**Aggregate quarries** are a major factor in the transformation of valley landscapes. Several valleys in the Ile-de-France are key zones for the supply of aggregate. Although quarrying only involves a transient use of land, it often produces irreversible changes in the landscape. These quarries could be a starting-point for the creation of new landscapes (cf. below: «Recomposing open spaces»).

**Infrastructure routing:** on both landscape and ecological levels, the routing of major infrastructures through valleys frequently has disastrous effects. Embankments cutting across a valley lead to a loss of biological continuity and to the breaking-up of farming structures; they also impede visibility. In the Ile-de-France, there are many examples of this type of rupture caused by completed infrastructures and others currently being installed (routings of the Francilienne highway and TGV in the Yerres valley, routing of the TGV interconnection in the Marne valley, planned TGV-Est in the Ourcq valley). Routing via high viaduct (similar to that projected for the TGV above the Ourcq valley) does however maintain biological and functional continuity and may even create a monument which will enhance the site. More frequently, however (as in the other examples already cited), installing infrastructures involves a sidehill cut which slashes into the hillside. This results in a cutting which blocks the valley, or a low viaduct which maintains continuity but cuts off the view.

The transformation of roads running alongside rivers also has harmful effects. On the one hand, the landscape is rarely considered when infrastructures are installed. On the other hand, the road often causes rivers and their banks to be cut off from their valley site (village, hillsides), a point which is particularly sensitive in urban areas.

### *The major challenge for valley landscapes: maintaining their openness and continuity*

The valley is a linear space. Although the character of a valley may change from upstream to downstream, its overall identity comes from the systems which provide continuity. Continuity is based on several factors.

**Biological continuity:** for fish life, the need for continuity in the water itself is quite obvious. External to the water, the functioning of biological corridors (dissemination of vegetation and the movements of land-based animals) is equally vital to the valley's overall continuity. Any break in the terrain due to infrastructures or urban extension will lead to a breakdown of the valley's ecosystem.

**Functional continuity:** from an economic standpoint, the large valleys, as well as some of the smaller ones (Yvette, Orge, Mauldre...), are important to the continuity of transport systems. This function is tending to grow even though congestion in the valleys has led to the installation of new infrastructures on the plateaux (the TGV-Sud-Est and the A5 motorway in the Brie at some distance from the Seine valley, and the forthcoming outer western bypass for the region on the Mantes plateau above the Mauldre). From a recreational standpoint, the liaison function of valleys (the importance of which is stressed in the regional Green Plan) is more difficult to conserve. The smaller valleys act as channels to extend nature into the metropolitan area and, in the opposite direction, they offer city dwellers a way out to the countryside. Even between urban zones (the Green Belt in particular), they are greatly appreciated as pleasant walking environments. Accordingly, hiking trails, the development of river banks and green tracks are all important elements in the maintenance of continuity.

**Openness and visual continuity are factors that are essential to the «respiration potential» and legibility of valley geography.** They are traditionally reinforced by farming activity. In a large number of valleys, visual continuity emphasises and enhances the views from chateaux both longitudinally (the Marais in the Rémarde valley, Courances in that of the Ecole) and transversely (Champs in the Marne valley, Vaux-le-Vicomte in that of the Almont). Continuity is also a vital factor in conserving cultural heritage.

Among the recommendations for ways to maintain the character of valleys, it is of primary importance to consider measures aimed at conserving the openness of valleys and, at the same time, their elements of heritage value (planted elements in particular). In rural environments, these mea-

asures (detailed in the chapter «Preserving and managing rural landscapes») could be aimed at protecting landscape forms which correspond to the archetypal landscape of picturesque countryside — grazing lands, rivers bordered with willows (pollarded or growing freely), back-drops of wooded slopes, ponds and marshes, water mills...

Since valleys provide an obvious axis for development, their urbanisation tends to be carried out in a linear fashion, even to the point of joining up villages and conurbations. Accordingly, town planning documents (local development plans, land use plans) must be aimed at maintaining distinct divisions between built-up areas.

The attraction of the verdancy of valleys makes them particularly vulnerable to overdevelopment. This is another area in which town planning documents may be effective, provided there is sufficient political determination on the part of local authorities to withstand pressure. Pressure is particularly strong when it comes to makeshift dwellings (used either on a continual or weekend basis) being gradually transformed into permanent structures.

There is still some lower valley land in urban environments which has remained unoccupied (the Yerres, Yvette, Orge valleys...). It has been conserved so far because it is liable to flooding. Flood control using upstream reservoirs is threatening this free space with urbanisation. The alternative to this would be to develop strings of parks, playing fields and ponds, linked by footpaths thus conserving the unique character of the bottoms of urban valleys. The park development undertaken by the intermunicipal association of the downstream River Orge is a perfect example of this type of initiative.

Heavy, large-scale, linear infrastructures such as motorways or TGV rail lines can badly disrupt small valleys. In most cases they cut across valleys rather than passing through them longitudinally. This cross-cutting — generally on embankments — breaks the continuity of drainage, human and animal transit, and the view. Efforts must be made to ensure that these infrastructures cross the valleys on a viaduct as high as possible above ground. The cost would certainly be greater than that of embankments but, in consideration of what is at stake, the cost would be justified. And these costs could be offset by savings in other areas: raising the vertical alignment (for access to a high viaduct) also means reducing the cuttings on either side of the viaduct; a reduction in the reference speed, especially in road projects, allows savings on the project as a whole (cf. the concept of green ways, in the chapter «Composing the linear infrastructure»).

All these initiatives should be directed towards conserving the open, linear and natural character of valleys. Conservation, however, does not mean stagnation. Valleys can present an opportunity to create landscapes through the harmonious development of quarries, well-managed and limited urbanisation, and the building of major structures.



# Preserving and managing the rural landscape



Rural areas are an essential part of the landscape (see part 1: «Landscapes: perception, dreams and experience»), and cover 80% of the Ile-de-France. Created by the hand of man over many centuries, on the substructure inherited from earlier geological eras, the rural landscape is the result of an unhurried evolution. Today it is experiencing rapid transformations that are perceived, more than any other such change, as negative in character. One of the main causes is the progressive decline of agriculture stemming from the modifications to cropping practices, changing markets and increasing pressure from the towns.

It is now high time to regard agriculture not only in its economic role but also as the sole activity capable of managing the rural landscape. Similarly, the other actors of the countryside (foresters, hunters, land owners) are managers of the land. The time has also come to reconcile the interests of preserving this landscape, a rich common heritage, with the need to see it evolve.

## Confirming agriculture in its role as manager of the rural landscape

Modern agriculture generates two types of space: that resulting from intensive farming where the aim is to produce as much as possible, and that resulting from a situation of withdrawal, when farmers can no longer cope with the constraints.

In the former case, the landscape is managed in an incidental fashion by farming. This might be called *de facto* management, where preserving the agricultural landscape is related directly to the maintenance of a productive economic activity. In the latter case, «intentional management» is necessary to preserve or even win back the landscape. This is clearly a different

kind of approach for the farmer, with objectives and know-how different from those necessary purely for a viable and productive business.

What is new is the growing recognition of the role of the farmer in the rural landscape, along with renewed interest in landscape considerations. There is a growing awareness of the landscape value of agricultural space. It is becoming particularly important to preserve it and even to work on it in order to shape it according to the received idea of rural space.

Preserving agricultural landscapes also forms part of a more general concern for protecting the environment. After all, the objectives of high output are not incompatible with a sustainable farming. The next logical step is to manage land more carefully, in a way more respectful of the environment and the landscape.

**Since the landscape is constantly changing, it is essential that preservation schemes should not tend to prevent its evolution.** Preserving the landscape does not only mean building an idyllic image or preserving an estate. There are many actors in the rural environment, so the development of the landscape is in fact a compromise between the different uses to which the land is put. Managing the landscape has to meet needs that are different from the requirements of agriculture alone. Since farming must evolve according to its own constraints, a fact that any management proposal must take into account, a process of negotiation should be at the heart of these experiments.

*Acknowledging agricultural land as part of our heritage and no longer as a property reserve*

**The Regional Development Plan (SDRIF) is the first regional master plan to recognise the heritage value of agriculture.** It affirms the high landscape value of 110,000

hectares of agricultural land (or nearly 20% of the total). It guarantees the continuity of the «major areas used for agricultural production» in Brie, Gâtinais Français, Hurepoix, Beauce, the Versailles plain, Vexin and the plain of France. As regards other areas, it makes provision for a «specific instrument for observing and monitoring the rate at which agricultural space is taken up by urbanisation», a facility for exchanges between all concerned with the ability to give warning of any risk of going too far. For agricultural areas in the urban fringes, it proposes specific management contracts to reinforce the characteristics of horticulture, these to be developed in conjunction with the agricultural authorities.

«Essential prerequisites for the enhancement of rural life are the confirmation that land will continue to be used for farming, arrangements for adapting the agricultural production apparatus, and the control of the expansion of market towns and villages in order to avoid scattered development in agricultural land». The SDRIF expresses concern for limiting the rate at which natural space is taken up, which should be restricted to 1,750 hectares a year. Nevertheless, by the year 2015 an area of 43,450 hectares (or more than 7% of the existing agricultural land) will be available for urbanisation, equivalent to four times the area of Paris or twice the size of the Fontainebleau forest. This urban growth is obtained by adding a further 25,000 hectares to the 18,500 hectares already declared as suitable for urbanisation by the Regional Development Plan of 1976 (SDAURIF) and remaining available. In order to safeguard agriculture, the SDRIF of 1994 proposes to programme urban growth and to manage the «urban front». It introduces the idea of critical mass, i.e., the existence of a number of farms forming an area of sufficient size: at least 2,000 hectares for ordinary farming, 300 hectares for horticulture and 50 hectares for production under glass.

### *Winning back areas in decline*

Abandoned land has had a bad reputation in France. To the farmers and other rural dwellers, it symbolises the abandonment and decline of rural society. It also draws attention to a profound contradiction: the fact that still more or less productive land is being abandoned while there is still famine in the world. The increase in the area of abandoned land is becoming a disturbing phenomenon, which should be countered by improving the management of space. It appears that the farmers are the main or even the only ones capable of managing the rural landscape. However when economic reasons alone are tending to cause them to abandon the land, there is clearly a need to take a fresh look at their role in rural space. Besides their traditional role of food providers there is that of managing or even generating landscapes.

It is still too early to judge the effects on the landscape of the application of the European Common Agricultural

Policy (CAP) and particularly the introduction of fallow. Brussels is known to be starting to consider criteria other than the purely economic in determining what policies should be followed in this connection. These policies are likely to incorporate the quality of the landscape, which clearly demonstrates the importance of already forging the tools that will enable future developments to be envisaged in a concrete fashion<sup>(1)</sup>.

**Most of the agricultural land in Ile-de-France is given over to intensive production**, an activity that ensures the preservation of the landscape in open spaces. However certain areas, exposed to strong and diverse constraints, are now in decline, and it is these areas that have drawn attention to the role of agriculture in managing the landscape. These weakened sectors are primarily — apart from the urban fringes — the valleys, where livestock raising is the activity best suited to the prevailing constraints (the steep sides of the hills, soaked soils valley bottom, and poor soil quality). However this activity has practically disappeared from our region, for reasons of poor viability and workload. The result is land being abandoned and increasingly left fallow in the valley bottoms: this can lead to reforestation that substantially modifies the landscape (see below: «Reopening areas that have been wooded»).

The winning back of these areas raises the question of whether viable management by agriculture is possible. There are a number of possible approaches, some of which have already been tried in Ile-de-France, whereby a farmer can resume livestock raising. One is to turn to farming systems different from the traditional: high quality production, leisure-type activities such as breeding or keeping horses. Alternatively land can be reorganised so that livestock farmers have areas large enough to permit extensive production. The community can also intervene by developing its own specific methods of management. This is the case of rustic animals introduced by the regional nature park of Chevreuse.

### *Reopening areas that have been wooded*

Certain open spaces in valleys, abandoned by farmers, have returned to woodland, thus closing off the open valley views. Some of them could be won back by means of a clearance scheme (or even through a project to produce firewood) before being returned to open meadowland (an example is the agro-environmental measures taken in the valley of the Epte). This restoration process would receive financial help from the authorities (the region, the départements with their sensitive natural zones — ENS —, the regional nature parks) over limited periods.

Other areas have been turned into woodland, to the detriment of the landscape and the ecological quality of the envi-

(1) This is one of the main objectives of the «Imago Metropolis» project developed by the IAUURIF, the CIRAD (International centre for agricultural research and development, Montpellier), the Politecnico di Milano and Eurosense, with a European financing.



ronment, using the financial assistance available for afforestation. In certain cases, such as wet meadows or peat bogs, this is not economically justified and has been made possible only by the provision of grants. **Making these afforestation grants (like the forestry fund of Ile-de-France) subject to ecological and landscape criteria would stop these fragile areas from being replanted when farming stops.** Their subsequent management (grazing in the wetlands, pasturage on the hill-sides, limited clearance operations and striping in the peat bogs) could be supported by the ENS management budgets or by organisations such as the «land conservancy boards»<sup>(2)</sup> or associations.

### *Acknowledging agriculture's rural landscape management as a service to the community*

The community is gradually becoming more aware of the social and landscape function of farming. In addition, agricultural management is cheaper than other forms of managing open space. Its value should therefore be acknowledged as that of a service to the community, deserving remuneration. The management of the land should be incorporated in the production objectives of the farm. If agriculture is to fulfil this function, it must be in full control of the production process, be made fully cognisant of the required final product, and be paid for the service, through a contractual approach involving all the actors on the rural scene.

**The farmer should be completely familiar with new production processes** so that he may adapt to new demands, such as the restoration of land left fallow, the management of areas of high ecological value, and the maintenance of hedges or copses. For certain forms of management, new techniques are needed, and here it is essential to establish the link between farming techniques and the forms they produce, as in the work done by Jean-Pierre Deffontaines at the INRA (National Institute for Agronomical Research)<sup>(3)</sup>.

**An essential prerequisite of winning back an agricultural landscape is to have a good prior definition of the type of landscape desired.** How the landscape is perceived by the public and the local authorities can be a starting point for defining the type of landscape to be preserved or even reconstituted. In part 1 («Landscapes: perception, dreams and

experience») we showed the importance of nostalgia for the well maintained bucolic landscape, but also the emergence of new points of reference, such as nature in the wild. The ecological criteria should also be taken into account: the maintenance of biological diversity can be an objective of agricultural management.

**The community should pay for the process of managing the land** in return for the service provided. If there is a viable demand for landscape from the users of the space, farmers can try to meet it by incorporating this function — previously no more than a by-product or externality — into their economic calculations<sup>(4)</sup>. However, if the «cost of the landscape» is to remain acceptable, agriculture must retain its function of production. Various financial incentives are possible to meet the needs of managing agricultural land, either through programmes aimed at preserving the space, or through programmes concerned with farming:

- Financial incentives to adapt agricultural methods, as the European Union has done in its agro-environmental measures;
- Support for investment, land restructuring, adaptation of farms in order to move towards new production systems; such supports are given by the regional council of Ile-de-France;
- Purchase of easements by agreement (for maintaining natural areas, plantations, etc.) that may or may not be accompanied by maintenance contracts;
- Direct payment to farmers for environment services provided.

These existing forms of aid could be orientated towards protecting the landscape, as is done in the valley of the Epte.

Contractual arrangements between farmers and «landscape users» ratify recognition of the role of farming in managing the rural landscape, and make it possible to determine the product desired and the remuneration of the service provided. However it is also important to devise methods of assessment to ensure that the contract has been properly fulfilled. The agro-environmental methods are based upon these contractual arrangements with farmers.

(2) These institutions preserve fragile lands by purchasing them, from the model of the British National Trust or the French *Conservatoire du littoral*, for coastal areas.

(3) See J.-P. Deffontaines, «Du paysage comme moyen de connaissance de l'activité agricole à l'activité agricole comme moyen de production du paysage. L'agriculteur producteur de paysages. Un point de vue d'agronome» in the proceedings of the conference on Landscape and agriculture (Paris, 27-28 March 1996), Paris, *Comptes rendus de l'Académie d'agriculture de France*, vol. 82, No. 4, 1996, pages 57-70.

(4) See R. Larrère, «Paysans, marché, paysages» op cit. in part 1 («Landscapes: perception, dreams and experience»).

It is up to the farmer as to whether he agrees to a specification previously laid down. A further step, as concerns direct payment for a service, could be the conduct of real negotiations between the different partners involved.

The process of winning back quality open land in rural areas should involve partners other than the farmers. Management should be refined through negotiations between all concerned: local authorities, farmers, forestry workers, hunters, ecologists, rambblers, and so on.

### *Restoring the network of rural tracks*

**For centuries the agricultural space was served by the network of rural tracks.** As a result of the transformation of cropping practices, the reorganisation of the land, the abandonment of entire sectors previously given over to crops requiring intensive care (vines, certain orchards, etc.), many of these tracks have been neglected. Nevertheless they constituted — as those that remain still do — a fundamental element in the structuring of rural landscapes. Bounded by hedges, ditches and embankments, they trace out on the ground the essential features of the structure of the land, which must be legible if the landscape is to be understood.

**These networks should be preserved, maintained to ensure that they do not disappear, and even delineated by plantations,** for three main reasons:

- They form an integral part of the landscape and are an element in its richness,
- They support vegetation that serves as a windbreak as well as a refuge for a whole range of fauna that lives in or uses it;
- Finally, and most important, they have a threefold service function: they provide working access to fields and woods; they are used by walkers who, in doing so, avoid conflict with farmers and benefit from a certain permeability of the space; finally they serve the landscape in providing the greatest variety of viewpoints and environments (as they run between walls, alongside a hedge or fence, at the edge of a wood, beside a pond, and so on).

The communes must become aware of this absolute necessity in an environment where country people and city-dwellers owe it to one another to live in greater harmony.

## Restoring status to natural spaces and woodlands

### *Recognising, managing and recreating natural environments*

The Ile-de-France still has many rich natural environments — i. e. those not used for intense production — but they are often little known and even less recognised. They frequently result from extensive use of the land in ancient times. Most

are in woods of varying size (public forests but also under-managed private woodland), and in the valleys (meadows, wetlands and hillside grassland formerly planted with vines or used for pasture).

The extent to which they are known is highly variable, and depends on their location or status. Besides their ecological importance, they have a particular landscape value, linked to the history of man's relationship with them (barren or difficult areas for man to work) and the variety of environments they provide — marshes with complex boundaries between water and firm ground, impenetrable brushwood, grasslands whose colour varies with the season (multicoloured flowers in spring, yellow in summer).

Apart from maintaining the diversity of the landscape, the preservation of these areas involves a number of issues (harking back to man's past activities, respect for biodiversity, legibility of geology, geomorphology, the presence of water, and so on). Primary requirements for such preservation are better knowledge and investigation of the sites (as regards the species that frequent them, the relationships between species and environment), and a study of their forms and structures, their environment and their inter-relationships (fundamentals of the landscape ecology).

The best form of management for these areas should be worked out on a case-by-case basis, having regard to the specific objectives in view: protecting a particular species with special requirements, exploiting the geomorphology, using the site for educational purposes, maintenance of biological links.

When natural areas are open sites, they are now considered as an important part of the rural heritage, having regard to the points of reference usually employed in this field (see «Landscapes: perception, dreams and experience»). The fragmented fields shown in paintings at the end of the 19th century and the beginning of the 20th, with cultivated hill-sides and open strip fields around the plateaux (Vexin particularly), no longer exist, as a result of mechanisation, land restructuring and the evolution of the crops themselves. Hence there is no alternative but to turn to sites in the valleys or wetlands, where pasture, small cultivated areas, rows of poplars and strip vegetation all constitute landscapes similar to the points of reference that were based on an open but compartmented countryside, and — most important — maintained<sup>(5)</sup>. Today the commonest threat to these areas consists either of intensification (ploughing meadows up to grow maize for animal feed), or abandonment pure and simple, which gradually leads to reforestation and the closure of the landscape. The necessary management to preserve these open areas satisfactorily can have recourse to the development of agriculture (such as pasture

<sup>(5)</sup>It is significant that the rehabilitation of the upper valley of the Loue in the Franche-Comté region used the 19th century as a reference point as regards landscaping and land use, -because this is what the local people wanted». See Jean-Marc Roscigni, «La haute vallée de la Loue», paper given to the 3rd National Conference on the Landscape (*Assises nationales du paysage*), Versailles, May 1997



or haymaking), forestry or gamekeeping, depending on the degree of protection wanted. This approach, even if not self-sufficient, can nevertheless reduce the costs of management.

As far as the closed landscapes are concerned, certain wooded areas would merit «complete» protection, in other words no intervention of any kind, to permit spontaneous evolution and ageing, such as the integral reserves at Fontainebleau or the «ageing copses» (groups of trees left to a natural ageing). Such «reserves» do in fact develop a landscape of «primary» forest, the symbolic image of the «real» nature in the wild.

Finally, special care should be given to the management of forest fringes, which are the point of articulation between open and closed space and the exchanges between them (see below and «Composing the urban fringes»).

#### *Developing and replanting trees other than in woods*

In plateau areas, the rural landscapes are characterised by vast agricultural horizons, enhanced by different types of woodland: roadside lines of trees, copses and spinneys punctuating the fields, isolated trees at particular points, hedges, the fringes of woods along watercourses. The intensification of cropping methods, particularly land restructuring and the enlargement of farms, has resulted in a degree of uniformity of the landscape and even in these features being eliminated. The loss of landscape is correlated with a loss of biological diversity, and of features acting as filters, limits to run-off, and windbreaks. Even in certain valleys (such as that of the Yerres), the vegetation beside the river has disappeared to the benefit of intensive farming that now extends right up to the banks. This landscape could be reinstated by reintroducing or preserving wooded features compatible with the existing agricultural activity (see above).

**It is high time to implement the converging provisions of several recent acts whereby the removal of hedges and sparse woodland can be stopped:** the «Landscape» Act (of 8 January 1993) provides incentives for protecting isolated trees, hedges, networks of hedges and lines of trees; the agricultural modernisation Act of 1 February 1995 takes up the provisions of the Landscape Act, making Prefectoral permission necessary for

the destruction of all linear woodland features, hedges and lines of trees classified in a land use plan (POS) or at the request of a landowner. The Act on the enhancement of environmental protection of 2 February 1995 modifies the conditions of tenant farming, empowering the lessor to oppose the removal of hedges.

A campaign known as «The tree in the rural landscape» (hedges, lines of trees, isolated trees, copses) was launched jointly by the Ministries for the Environment and Agriculture, in partnership with private forestry interests, in 1994 and 1995. The aim is to encourage an overall and long-term approach to the development of this landscape heritage, in order to stress the importance of having trees in a rural environment both to the public but particularly to farmers.

#### *Knowing and appreciating outstanding trees*

As regards outstanding trees either isolated, in parkland or in woods, they are at present benefiting from a resurgence of interest, and a new approach. It is no longer a question of regarding them as monuments, but of listing and monitoring them. In the absence of any suitable passive protection, action is taken on a case-by-case basis, as for the remarkable Lebanon cedars near Roissy airport, which have been spared. Inventories of outstanding trees are made by the ethno-botanical laboratory of the National museum of natural history and by the National forestry commission (ONF). In 1995 the latter began listing special trees in the public forests of Ile-de-France (regional directive of 7 February 1995) covering an area of 62,000 hectares, excluding the massif of Fontainebleau. The 600 trees selected were given a score in terms of stars. About 20 are really exceptional, including a few oaks and chestnuts more than 2 metres in diameter.

The public forest of Fontainebleau is a good illustration of the relevant policy: the death of one of the oldest trees in the forest, the oak known as Jupiter, 600 to 650 years old, caused particular concern. The forestry commission is therefore working in partnership with the «association of the friends of the forest of Fontainebleau» to determine which trees should be preserved, already setting aside healthy trees of intermediate age to ensure continuity. From now on, the personification of trees is avoided.

### *Maintaining the area under woodland and improving its quality*

In Ile-de-France the area under woodland, having retreated before the advance of agriculture until the beginning of the century, and then that of urbanisation, has now stabilised. The major urbanisation projects in wooded areas, such as the garden city of the Butte Rouge in the 1930s or the scattered development of housing estates in the forest of Chantilly or of the Trois Pignons, would be hardly conceivable today.

An essential source of inspiration to artists (particularly the school of Barbizon), the forest is an irremovable element of the Ile-de-France landscape. Indeed the major forests mark the entry to Ile-de-France (see «The composition of the landscapes»), emphasise the relief, and delineate the great open spaces. Although most large wooded areas, particularly as a result of their management, no longer have much of nature about them, their very presence does allow the people of Ile-de-France to appreciate, as the seasons pass, the changing landscapes which they relate to those offered by nature. They have become one of the principal leisure areas for the town dwellers. Thus there are many reasons why they should be protected.

The threat to woodland integrity today is no longer that of clearance, but that of being fragmented by infrastructure. There is an overall limit on forest clearance, but its qualitative results are nevertheless substantial. Although there is provision for compensation for loss of social or ecological value, the lack of any qualitative compensation results in the emphasis being placed on quantity. On the average, exchanges have taken place on a basis of 1 for 3, but it is becoming increasingly difficult to find wooded areas of similar quality and close to those that have been cleared.

It must be remembered that according to the forestry law (*code forestier*), authorisation is required for any tree felling in a wooded area of over 4 hectares in a single stretch, except for operations forming part of an approved management scheme, and that the town planning code protects natural zones, including woodland which may be «classified»<sup>(6)</sup>. This classification prohibits any change in the use of the land or any land occupation such as to compromise the preservation, protection or creation of woodlands.

**Today all woodlands in Ile-de-France are protected by the Regional Development**

**Plan (SDRIF).** This organisation also protects the buffer zone that surrounds the large forests since it stipulates that «**outside established urban areas, any new urbanisation will be forbidden within 50 metres of the boundaries of woods and forests covering over 100 hectares**».

Acquisition has become a constant concern of the public authorities. It is not only a matter of protecting the forests but also of opening them to the public (the scarcity of woodland open to the public is resulting locally in some damage caused by too many visitors).

The quality of woodland is also a permanent concern of their managers.

With regard to private forests, one of the basic qualitative objectives is to convert areas of coppice into high forest, this conversion being well advanced in the public woodland. Such conversion is slow, necessitates substantial investment and a period of transition without resource. However it is desirable to preserve coppice and coppice-with-standards, with a view to biological diversity and the management of small areas.

Since the improvement of private woodland is a regional priority, an «Ile-de-France forestry fund» has been established. Funded equally by the State and the Region, it provides grants (to a level of 60%) for afforestation, reforestation or natural regeneration, with careful attention to the technical, biological and landscape quality of the species planted.

### *The integration of buildings in rural landscapes*

The village bell tower with its bells ringing the angelus at the bottom of the valley, or standing above a field of ripe corn, is the very image of Epinal. Symbols of a patriarchal agricultural society now gone, but whose rules and strict practices have fashioned the rural landscape, the villages amidst their fields, meadows and woods, are all firmly established features to which any «beautiful landscape» makes reference.

The evolution of rural landscapes has woven indelible links between the villages and their surroundings. These links are made up of the structure of the land, from the smallest (urban lots, orchards, vegetable gardens, strips of

(6) Classification under article L130 1 of the urban law (*code de l'urbanisme*).



vines or woodland) to the biggest (large fields, pasture, forests, and so on). They consist of the relationships between the built and the non-built, from the bell tower dominating the roofs of the houses to the trees in gardens and orchards, to the enclosing walls, to the cultivated fields with, in the background of the picture, the woods and forests whose edges mark the boundary of the open space won over them. Finally they consist of the network of roads and tracks that have knotted overall a net where each mesh is emphasised by a ditch, a bank, a hedge, a line of trees or a gate<sup>(7)</sup>.

All this fine logic has now been upset, just like the logic that oversaw the configuration of the villages, whose fundamental activities have vanished. No longer is there any blacksmith or saddler, no more links between the church which has no priest, the town hall, the main square, the common yards that shaped the pattern of dwellings, the farms surrounded by houses, no more market, no more shops. The roads are tarred, the crossroads widened, the communal tracks handed over to the farmers to be ploughed up, the farms empty, the walls fallen into ruin, the buildings industrialised. The interests and concerns diverge, and conflicts emerge between those who live in the country, the suburbs and the town. And the landscapes, created slowly over the centuries by people attached to the land, built in the traditions of the guilds using materials taken from the ground, are now changing at unprecedented speed. A few problems stand out from the many that have to be resolved:

- The decline of old buildings,
- The takeover of public spaces,
- The abandonment of small items of heritage,
- Farms ceasing to work,
- The arrival of new buildings and facilities in the landscape.

All these, like the abandonment of rural tracks, have a decisive impact on the landscape.

### *Rehabilitating rural buildings*

Generally speaking, the rehabilitation of buildings in rural areas takes place at three levels. First there is the preservation and maintenance of the heritage recognised by all, which is usually limited to the church — the maintenance costs of which are the municipal budget. Secondly there is the «ordinary» heritage, practically all dating from the last century, the continuity of which is essential to maintaining the village landscape. Thirdly, there are the farms that are not integral with the villages, whose buildings are abandoned in one hectare of land in the middle of the countryside, or where a barn or stable is gradually falling into ruin. The first level generally receives constant care, and is likely to benefit from contractual funding (under regional grants) or grants (if it is protected by the law). The second level was largely covered above in the chapter on «Rehabilitating districts». However the importance of dealing with public space

(soils, planted areas, grouping or burying overhead power and telephone lines) must be recalled as well as preserving the architecture of walls, in Ile-de-France as in many other regions. This is in fact an essential feature of the landscape of our villages; this stems not only from its function as a discloser of the urban fabric but also from the partitioning effect of walls in the use of space, by the linkage they provide between buildings, by the materials they use (stone renderings) and the gates and doors they contain<sup>(8)</sup>.

However the third level raises a dual problem, first that of changing the vocation of a whole series of buildings that have lost their original purpose owing to the changes in the world of agriculture, and secondly that of the cost of maintaining or refurbishing buildings that are frequently enormous and ageing, with large roofs and few windows and doors. Their survival is nevertheless decisive owing to the strategic locations they usually have in the landscape: on spurs or ridges, cols otherwise invisible, in the vicinity of a pond or spring, or at the centre of a woodland clearing. The network of rural tracks converges on them, making them nodal points in the landscape, symbolising the forces that act upon it, which have governed it for centuries in a well established tradition.

Thus the issue is much more than just preserving old buildings: there is a need to find them a new function. Converting them into second homes is an exception, since their size and locations are unsuitable, even though this would have been a good way of ensuring their survival, as in certain other regions of France. They can be converted into collective housing if they are located in the village, but this would be inconceivable for an isolated farm. There is then no alternative but to turn towards the local authorities or those who promote or manage facilities: riding centres, educational farms, ecological museums, rural B & B establishments, restaurants, etc. — and even golf club houses (the latter conversion drains all meaning from the building because it involves remodelling the entire surrounding landscape, redefining the links between the building and the «natural environment»). Another approach would be to consider converting them into buildings for craft trade use, at a time when every commune is trying to promote its own area of activity. However it would still be necessary for the town planning regulations to consider such a possibility and to give its permission.

### *Sweeping away compartmentalisation*

A perfect hierarchy can be seen in the way rural areas are organised. The landscape it has generated reflects the period of its zenith, before the Great War depopulated the countryside and finally broke down the old family struc-

(7) It is interesting to re-read Gaston Roupnel «Histoire de la campagne française», Paris, Plon, republished 1974.

(8) See in particular Michel Vincent, *Maisons de Brie et d'Ile-de-France*, op. cit.

tures. This hierarchical organisation influenced the land structure<sup>(9)</sup>, but also the public spaces. Main street, main square, church or town hall square were the areas where community life went on. Radiating from these central spaces, a whole network of secondary routes, often reduced to paths or tracks, serving the orchards and vegetable gardens and, beyond, the fields, giving the village permeability. The public space could also breathe through a whole series of common courtyards perpendicular or parallel to the street, which served the dwellings of those who lived in the village: labourers, tradesmen, and so on. Today these networks and courtyards tend to be taken over by those who live nearby, the tracks being appropriated to the neighbouring land, or sold to build a lean-to, a garage and so on; as regards the common courtyards, that used to be the source of great conflicts between neighbours, they are now divided up and fenced, reduced to numerous little gardens which would be better suited to a suburban housing estate. Nevertheless it is essential to maintain these networks and some of these yards in order to preserve the transparencies and dilatations; also, by giving access to the surrounding countryside, they provide viewpoints from which it is possible to see the village, the backs of its houses, its walls, its fruit trees, to have access to the fountains and wash houses. Just like the rural tracks, their maintenance and continuity is a duty for the local authorities

### *Maintaining the small items of heritage while respecting their character*

The landscape of fields and villages is punctuated by wells, wash houses, fountains, drinking troughs, small bridges, milestones, crosses and war memorials. Whether utilitarian or symbolic, these smaller items of heritage constitute reference points, preserve the memory of ways of life and activities long gone by, and contribute to local identity. They are rarely protected. Once they serve no further purpose they are forgotten, left abandoned, and slowly fall into ruin. This represents a loss of identity and memory, but frequently also leads to other forms of degradation: the brambles and nettles invade the ruins and their surroundings, this old wash house is «tagged», that old isolated building has its squatters and is then left with the remains of their fires, an old roadman's hut becomes a waste dump.

These commonplace items of heritage are not only buildings or structures. Ponds, old walls and ancient orchards make an equally important contribution to the identity of farms and villages. These features, even less recognised, are disappearing even quicker: so many ponds are filled in and so many walls broken down.

On the other hand unsuitable restoration can take away the character and richness from these small features. A high proportion of their landscape value and the essence of their ecological importance are in fact related to their non-uniformity, their patina and lack of maintenance. The

ponds are the remaining habitat of aquatic plants, algae, kingfishers, and dragonflies. Old walls see the growth of lichen, moss, bracken and climbing plants. Hollow trees shelter owls, woodpeckers, small rodents and innumerable insects. All this life, complexity and diversity of environments are a source of richness to be carefully preserved.

The small items of heritage are beginning to be recognised. The regional nature parks and the regional grants are making it possible to begin restoration and development projects, and a number of old wash houses have already been restored. It is necessary to find a balance between the work necessary to prevent degradation of this heritage and the respect for its rustic nature.

### *Incorporating new buildings in the rural environment*

When new buildings (a house, facility, business premises, or small estate) are put up in a village or on its boundaries, they encounter the same concerns, keeping things in proportion, as the more extensive operations in the town (blocks of flats or offices, craft trade areas, estates or new districts). In this context the approaches developed earlier («Designing towns» and «Building a town upon a town») are the same, except in scale. Moreover, the local town planning regulations (master plans, land-use schemes) usually bring in intelligent solutions, often anticipated by the awareness programmes carried out by the CAUEs, the professionals and administrators in local authorities.

However if the new building is isolated in a rural area, there is a need for some specific consideration of its nature and surroundings.

It is possible to distinguish between two categories:

- Linear items (power and telephone lines, road or railway embankments and structures, and so on); as regards these items it is worth consulting the chapter on «Composing the linear infrastructure», and the paragraph dealing with the rehabilitation of rural buildings, although we must not omit to recall the particularly detailed structure the problem can take on. A low or intermediate voltage power line, a network of telephone wires, unsuitable road signs, can all in fact constitute black spots in the landscape owing to their density, the fact that they take the shortest route between two points with no regard to the relief, the structure of the land, and so on;
- Isolated items, which can in turn be subdivided into three types: new urbanisation, agricultural buildings and public facilities.

The Regional Development Plan (SDRIF) approved in 1994, together with the «questions and answers»<sup>(10)</sup>, provided the most unambiguous answer possible to the problem of inser-

(9) See *Les Cahiers de l'AURIF* (AURIF Journal), No. 118-119 (to be issued at the end of 1997), «Trois siècles de cartographie en Ile-de-France»

(10) *Le schéma directeur d'Ile-de-France. Questions-réponses*. Paris, Ministry for development, housing, transport and tourism (DAU, DREIF), October 1996.



ting buildings into a rural environment. Here we are remote from the policy that used to be promoted, according to which land not to be built upon was the exception. The campaign against the scattered development in the landscape, which began in the 1970s, today has a sound regulatory basis upon which the different actors, particularly the associations, do not fail to rely. The town planning regulations drawn up according to the requirements of the Land Act of 1967 — local master plans, land use plans — have already moved essentially in this direction.

The same does not apply to isolated agricultural buildings. Originally built using traditional methods, and then with more modern resources and techniques, their location and size fell in with local practice, particularly that of increasing the size of farms which necessitated decentralising the storage facilities. Today their nature and location, no longer affected by the distance to the farm itself, seem to be more related to road access and the possibility of reaching a market that is becoming global. Hence the increasing numbers of barns that have not benefited from the attention of an architect, as well as production greenhouses made of plastic<sup>(11)</sup>. There was also a rapid spread, at the end of the 1970s, of the silos needed to store harvested crops, while awaiting the best time to release them on the French, European or even world markets. The SDRIF makes no particular provision regarding all these buildings, which although certainly necessary to the continuation of agricultural activity are nevertheless frequently damaging to the landscape, particularly when their location forms part of no apparent spatial logic. Certain local master plans do make specific provisions in agricultural areas of considerable landscape interest; these provisions seek to impose a special landscape insertion study upon any buildings, including those for agricultural purposes (for example the local development plan for the Boucle de Jablines). The land use plans (POS), lobbied by the agricultural industry, rarely make restrictive provisions of this kind in agricultural areas. However they do define zones where all construction may be forbidden for reasons of safety, usage or — frequently — landscape (the natural zones of the POS).

Finally there are the public facilities, which are amongst the installations having the greatest impact on rural landscapes, being generally located on the basis of technical criteria related

to the presence of services, the altitude (water towers), and the vicinity of natural outlets (waste water treatment plants). As a general rule, the town planning regulations place no restrictions on their location. The action of the CAUEs, and the growing sensitivity of certain engineers and elected representatives to the unconsidered location of this type of facility, have helped move things forward: projects are the subject of specific location and insertion studies that employ criteria other than the purely technical; buildings are, if appropriate, the subject of architectural competitions, and all such provisions limit the negative impact on the rural landscape while permitting the construction of facilities that are indispensable to the development of modern urbanisation and the convenience of the public.

However certain projects are still liable to dispute: this industrially designed waste plant situated in a rural area on the pretext of shortening the route the lorries have to take (even though most of the waste to be collected is where the people and the businesses are, in other words in the town and not in the open country); this water tower which claims to be a work of art, thereby rejecting all the sober design necessary for its satisfactory insertion; that high or intermediate voltage power line following the shortest route between two points.

The approach to be encouraged in all these projects is the one that seeks to integrate the landscape preoccupation as far upstream as possible. Even today, too many projects are presented to local authorities and the public as undeniable evidence by the engineers who conceal their indifference to this issue behind their economic or technocratic claims (only waste disposal, increasing traffic, and suchlike are regarded as having an impact on the environment). If landscape concerns are taken into account at the outset of the project, it is generally possible to find satisfactory solutions to the insertion problem, given imagination, know-how and good will. If this leads to additional cost, it should not be forgotten that the preservation of the common heritage the rural landscape represents can also have a price.

(11) In application of the provisions of article R 421.1.2 of the urban law, which stipulate in particular that «the following are not required to call upon the services of an architect to prepare the plans (...) an agricultural building the usable area of which does not exceed 800 square metres, production hothouses the walls of which are less than 4 metres high and of which the usable floor areas does not exceed 2000 square metres»

# Redesigning the open spaces



**L**ike every region, the Ile-de-France has places that are abandoned, looking rejected. They may be areas awaiting an uncertain future, lying fallow. They are waste lands, like there used to be in the growing towns, those places of adventure and hazard. If they are built upon, they aspire to be won back, redeveloped and re-integrated in the town. If they are really vacant, they are unclaimed sites on the fringes of town, or hidden away on the edges of a forest, at the bottom of a valley, roughly fenced off, often difficult of access. Occasionally they are black spots on the landscape, spreading along roadsides, in the middle of valleys, the unhealed scars of earlier developments, where once prosperous activities have withered away.

Such areas, just like those that are built upon, should be won back and put to another use, or at least managed, so that they are no longer the rejected spaces of the town. To go further, preventive action should be taken to prevent them from appearing in the first place.

Far-reaching actions of this kind have been taken with regard to old abandoned quarries. In this particular sector, such situations are no longer tolerated today and the professionals do their best to heal the wounds inherited from a past that is still relatively recent. From now on, new quarries are in fact no more than a temporary episode in the life of the landscape.

The extraction of materials from the ground, whether alluvial or limestone aggregate, gypsum, clay or sand, does nonetheless lead to substantial and rapid changes to many open spaces in Ile-de-France. These changes are particularly striking because the sites concerned are key features in the understanding of the landscape of Ile-de-France: valley bottoms, the insides of river loops, where fields and pasture become quarries, then ponds, outliers gradually worn away, edges of plateaux which take on the appearance of monumental cliffs, by diggers, trucks and dragline tracks.

As landscapes that are forgotten or in rapid transformation, these areas should be recomposed with due thought to their future appearance, whether built upon or not, then taken in

hand to form a new piece of the landscape at large.

## Making good the post-quarry landscape

Economically speaking, the extractive industries are indispensable to the life of the region, whether to meet the increasing needs for aggregate (for roads, buildings and public works) or to feed industries of national importance (plaster, glass, cement, and so on)<sup>(1)</sup>. Taking all materials together, some 200 to 250 hectares every year in Ile-de-France are turned over to quarrying<sup>(2)</sup>. This more or less definitive trend in land use inevitably results in changes to landscape structures on different scales, from the extraction site to much larger areas.

**The implementation of landscape schemes at the extraction sites should enable rational recovery of materials, by reconciling the economic interests with the objectives of respecting and protecting sites and landscapes.** At these sites, one of the major objectives should be to seek the best possible integration of the quarry into its surroundings. At the very beginning of the working phase, there should be greater consideration of the landscape at the project design stage, in order to determine the best operating procedures and the mitigation measures that would limit visual impact as much as possible. Then, when quarrying has ended, the principle of compulsory restoration of the site is accepted and is reinforced by the new legislation that brings in financial guarantees. Accordingly the likelihood of a quarry site being abandoned and not redeveloped, becoming a black spot in the landscape, is considerably reduced. Today the issues may be considered at two levels:

- The details of redevelopment projects, which should be formulated as far «upstream» as

(1) In 1994 the 22.9 million tonnes extracted from the ground of Ile-de-France consisted of 15.6 million tonnes of aggregate (sand and river gravel, grit and limestone) and 7.3 million tonnes of industrial materials (gypsum, silica sands and refractory clays)

(2) In 1996 nearly 170 extraction sites were authorised in Ile-de-France, making a total area of about 8,210 hectares, of which about 1220 hectares are underground quarries.



possible and cover an enlarged perimeter, beyond the mere extent of the workings;

- The management and maintenance of redeveloped sites, particularly as regards natural spaces or areas used for leisure activities, in order to prevent any risk of abandonment, degradation or waste; in fact any natural areas, whether woodland or recreational spaces, that are established as part of the refurbishment, also require management and maintenance; a redevelopment scheme may lose its entire value if the landowner uses the land for a purpose different from that for which the quarry was redeveloped.

On a wider scale, there is a case for undertaking a recovery and development policy at the level of the material deposit in its entirety, based upon homogeneous spatial units that go beyond the strictly administrative or land-owning boundaries. The issues then concern the coherence of the redevelopment work in an overall and landscape development approach, including, if necessary, re-landscaping schemes.

### *Taking action at the scale of the extraction site*

Although a materials extraction site is only a temporary stage in land use, it is often a decisive feature in the landscape. Two main phases can be distinguished: the working period itself, and the period that follows.

**The working phase as such corresponds to the extraction and production of materials.** In very schematic terms, open cast quarries can be classified into two main categories:

- The extraction of alluvial sand and gravel, located in river plains and where the deposit lies in the main bed of watercourses; since the deposits are thin but high in volume, they usually occupy vast areas, and are worked over relatively short periods of a few years;
- Rock quarries (limestone, gypsum, etc.) with which we may include certain sand quarries, are developed on escarpments, hillsides or plateaux and are usually concerned with thicker deposits; these necessitate greater investment, and last longer, possible for several decades.

The visual and landscape impacts of a material extraction site depends upon the extent of the extraction zone, but also on the processing installations, the material stocks and even on the secondary activities (transport). The intensity of these impacts is variable according to the site. It depends on the characteristics of the workings, the type of material recovered, the topography and the original use of the land. However the landscape impact of a quarry, except for a few enormous projects on hillsides, usually remains local, not exceeding a few hundred metres in the most unfavourable cases. Generally speaking, the impact is greater for rock quarries (limestone, gypsum) than for the alluvial quarries.

**When the working phase comes to an end, the next**

**period is that of refurbishment and redevelopment**, the characteristics of which will determine how well the site is integrated into the landscape. It may be decided to return the land to its original use (farming or woodland) similar to its initial state. Alternatively the space may be restructured for other functions: the creation of «natural» spaces, agricultural or forestry zones, leisure activities or housing, resulting in a configuration extremely different from the original. Exceptionally the quarry can also become a strong feature enhancing the landscape, particularly where large rocks have been excavated.

### *Taking into account the scale of the deposit*

Although a material recovery site is characterised by a well-defined area of land<sup>(3)</sup> and a limited duration, it is nonetheless appropriate to go beyond this scale to take into account that of the whole deposit, which often extends beyond the administrative boundaries.

For certain materials, the geological features of the deposit in terms of extent and thickness, and the importance of the volumes to be extracted, result in the workings being highly concentrated within a limited space. This concentration generates new types of space that may contribute to profoundly modifying the landscape.

Thus the intensive recovery of alluvial sand and gravel over some 30 years has caused a rapid change in land use in the main valleys in Ile-de-France, where gravel pits and ponds are becoming a characteristic feature of the landscape. The increase in the number of these ponds, often accompanied by phenomena of scattered housing development, are forming new types of landscape and contributing to changing the identity of these areas. Similarly the recovery of gypsum in open cast workings profoundly marks the landscape in sensitive urban fringe areas.

The extent of current and future activities means that these sectors must adopt a global development approach and a vision that extends into the future.

The arrangements made and actions taken will vary according to whether they concern the extraction site alone or the entire deposit: in the former case, it will be necessary to enhance joint action and to bring in all available technical skills; in the latter case it will be a question of developing a long-term strategy, introducing appropriate management tools and considering coherent landscape entities.

### *Reinforcing prior agreement*

Since 1976, Prefectoral authorisation based upon an environmental impact study has been required before the opening of any quarry. In landscape terms, this study is supposed to evaluate the effects and consequences of the

(3) Besides the purely geological aspects, the area covered by an extraction site meets two obligations: the management of the land by the operator (in direct ownership or under a contract of rent for quarrying rights) and the compatibility with the local town planning regulations (POS), which must permit material extraction.

workings, propose measures to prevent or reduce the effects, and indicate how the site should be restored and redeveloped.

The execution of the impact study should reflect the prior agreement that is today supposed to accompany every new quarry project. This agreement is supposed not only to define the working procedures and the measures likely to ensure that its insertion into the landscape is as satisfactory as possible, but also the future use of the land. This phase of the study should interest or even involve all the partners concerned: the operator, the local elected representatives, government departments, the associations and those living nearby. This kind of approach cannot but assist the acceptance of a project at local level.

### **Bringing in all possible technical and scientific skills**

From the stage of the impact study through to the subsequent restoration of the site, all possible technical and scientific skills should be involved with a view to the best possible insertion into the landscape.

**The first step is to enhance the extent to which the landscape is considered in the prior investigations.**

At this stage the impact of a quarry is most often perceived in terms of visual impact (depending on whether the vistas are close by, distant, dynamic and so on). However they less frequently incorporate the structure of the site in broad terms, or how its identity will change. These aspects should be developed, particularly in determining the restoration plans, in order to result in a degree of coherence of composition, scale and volume between the quarry and the site of which it forms part.

**The landscape investigations should also make it possible to determine the operating procedures** with a view to making the works less visible and encouraging landscape integration. For example it is a question of determining the boundaries of the quarry and the conditions governing its operation (phasing of works, direction of cutting) as a function of the vistas offered by the surrounding area. These studies can today be computerised with the development of computer-assisted design (CAD) software and synthetic image processing. They constitute a particularly effective aid to decision-making by making it possible to visualise the different stages of a project and their integration into the landscape, and even to check the effectiveness of the proposed mitigation measures.

Many measures can also be determined that are adapted to the problems and characteristics of every project. Thus today it is commonplace to use co-ordinated redevelopment whereby the area of the extraction site can be limited to the minimum. Screening by embankments or vegetation, if carefully located, can effectively reduce the views of a site. The landscaping of the entries to and edges of extraction sites, the treatment of storage areas, the layout and appear-

ance of processing installations, and so on, also contribute to better integration of a quarry into its environment.

**Finally, the quality of the restoration plans is a factor in guaranteeing the insertion of such sites and of their subsequent use.** In parallel with the quality of the earthworks (banking up the quarry faces, varying the profiles of pond banks and so on), the continued maintenance of the site to ensure successful «regreening» operations, the quality of the embankments and of the restored topsoil, the preferential use of local species in replanting, and so on, can all enhance the standard of the redevelopment.

The operators of the quarries are of course the partners in a policy for improving the insertion of quarries into the landscape. Due recognition of such actions as the «quarries and landscapes» competition, organised by the professionals, whereby the most interesting operations in Ile-de-France are rewarded, can stimulate industry and raise its awareness. Many operators are already carrying over this approach into their internal policy (through enterprise environment schemes, and so on) or professional charters<sup>(4)</sup>, the principle of which could be extended to all the materials used in Ile-de-France. Other schemes could be proposed to the operators covering more specific aspects, for example the landscaping of the installations, limiting the height of material stocks, land grouping during the preparation of the quarry scheme in order to enhance the subsequent use of the land. A particular field of application could be those sectors where the landscape stakes are higher, such as regional nature parks, main material deposits, and so on.

### **Undertaking studies to develop and win back coherent landscape entities**

The regulatory provisions that govern quarrying apply primarily at the scale of the particular project. The impact studies usually concern the area of the quarry and its immediate surroundings; rarely however do they extend to the scale of the landscape entity or the material deposit, whether as regards the impact on the landscape or the vistas related to restoration.

There is today no systematic definition of the vocation and management of the future restored quarry sites, and there is therefore a case for undertaking development studies on natural entities, relevant landscape sequences (valley sections or loops, lines of relief), based both on the varying potentialities of the sites (landscape, ecological, agricultural, touristic, etc.) and on the operators' regulatory obligations to restore the site. Such studies should determine the preferential vocations (regaining the landscape, ecological development, sporting and leisure activities) and orientate the developments accordingly.

(4) With the professional Charter of the aggregate industry (*Union nationale des producteurs de granulats*, UNPG), the professionals in the trade undertake in particular to secure agreement with local elected representatives and the public prior to any application for authorisation, and to ensure that the impact study places more emphasis on the aspects related to the landscape and to the integration procedures. In Ile-de-France, the signatories of this Charter account for over 90% of regional production of aggregate.



At the scale of a material deposit, the aim should be a complementary application within a co-ordinated development objective.

### **Introducing management tools for redeveloped spaces**

A precise definition, at the earliest possible stage, of the property status and method of management of land is an important issue for the future use and management of redeveloped land.

Land ownership by local authorities appears to be an effective means of guaranteeing the vocation, maintenance and management of a former quarry site. This can be exercised through a right of pre-emption for Sensitive Natural Spaces<sup>(5)</sup>. However this public land ownership cannot be justified for all former quarries. It should be applied primarily to those areas where there are substantial environmental stakes or those where projects of valid public interest are likely to be developed.

In addition to the traditional means of acquiring and protecting natural spaces that public land ownership represents, there is a good case for encouraging other types of intervention, for example by invoking contractual provisions. There are many possible solutions that can be used on a case-by-case basis or in a co-ordinated manner within overall schemes:

- Contracts for opening land to the public, where a private landowner undertakes to make his property accessible in return for the local authority's taking in hand the necessary development works;
- Easements by agreement that link local authorities to private landowners, ensuring that land cannot be built on without having to purchase it, and ensuring the continuity of the natural character of certain areas where opening to the public is not a matter of priority;
- Seeking for ways and means of ceding back redeveloped land to the community;
- Encouraging land groupings (between plots under a rent for quarrying rights and plots under direct ownership, between owners...) by schemes for local or communal rearrangement, since breaking up properties often makes the redevelopment and management of land more difficult.

### **Developing long-term operational and development schemes**

Sectors such as la Bassée for alluvial sand and gravel, the massif of Aulnay and the Monts de la Goële for gypsum, and le Mantois for cement limestone, all involve substantial reserves of materials of regional or national interest. The prospects for long-term operation of these deposits cannot be separated from the consequences on the landscape. In order to ensure that economic activities can continue while

respecting the common interest, «deposit contracts» should be signed, whereby non-renewable resources can be managed globally and on the right geographical scale.

The introduction of operational and development schemes should make it possible for workings to respect the different environmental constraints, while allowing all the interests involved to coexist. The aim is to reconcile the environmental issues — particularly those of the landscape — with the other uses of the land, the development of housing and infrastructure, as well as the technical constraints arising from the recovery of materials.

Protecting the landscape should be a constant concern. A number of possible avenues deserve consideration:

- **Establishing the major operating principles** in order to reduce the visual and landscape impacts (preserving wooded hillsides in so far as possible, limiting heights of excavations according to vistas, and so on);
- **Utilising the opportunities for diversifying and enhancing** the landscape that quarries may offer;
- **Preparing for the future** use and management of restored sites, if necessary invoking a policy of land acquisition;
- **Taking these concerns** into account in the local town planning documents.

Implementation of these schemes should make it possible to limit the visual and landscape impacts and to visualise the future landscape resulting from a large-scale extractive industry. This kind of policy should involve all those concerned: local local authorities, Departments, Region, State departments and industries involved with the recovery of materials and land management (farmers, foresters, water managers and so on).

The Departmental Quarry Schemes, established by the Act on quarries of 4 January 1993, and now being developed in Ile-de-France, should contribute to the implementation of these considerations at the scale of material deposits. The aim of these schemes is to lay down the overall conditions for siting quarries in the Departments by taking into account the economic aspects as well as the protection of the landscape and sensitive natural areas, together with the balanced management of space. They lay down guidelines as concerns redevelopment.

### **Winning back, eliminating or refurbishing degraded sites**

**Rural spaces, just like those in the towns or on the urban fringes, are confronted by areas that are abandoned or degraded: uncontrolled dumps, former quarries that have not been redeveloped, ruined or neglected buildings, agricultural waste land and so**

(5) The Departments can define Sensitive Natural Spaces (*Espaces naturels sensibles*, ENS) in places of ecological interest and acquire there a right of pre-emption.

**on.** The origin of these spaces is many-sided: activities stopped owing to changes in the economic situation, discredited or polluted business premises, abandoned farmland, accidents, land awaiting development, lack of legislation requiring redevelopment, fringe spaces, and so on.

For many of these sites, the impact on the landscape is frequently out of all proportion with their real area: evident degradation, highly visible, a negative image viewed from a road. Also, besides merely degrading the landscape, these areas often present risks for public safety or the environment (unhealthy aspects, risk of pollution).

As far as these degraded or abandoned sites are concerned, landscape schemes should have a twofold objective:

- Winning back, eliminating or rehabilitating; the schemes should then form part of coherent programmes aimed at ranking the urgency of intervention and guiding the rehabilitation and redevelopment procedures on a case-by-case basis;
- Preventing abandonment and degradation.

### *Winning back degraded sites*

Before sites are rehabilitated, they should all be examined and analysed in order to identify priorities and plan the measures for their redevelopment. The analysis should cover a number of different points: identifying the impacts on the landscape, the human and natural environment, the existing or potential hazards, the status of the land, the type of work to be undertaken, and the partners likely to be involved.

Similarly the schemes may be aimed at producing different results: a simple elimination or a development project. The elimination of the landscape «black spot» in order to integrate it into the environment could involve earthworks to fill in an excavation or make the land safe, the clean-up of a site involving removal of waste, demolition of buildings, re-planting by seeding or reforestation.

Rehabilitation can also be the opportunity for launching a veritable development project aimed at putting the site to a new type of use. For example a sports and leisure area can be created on an old quarry by using the characteristics of the site; or reconversion of the old rural habitat (old farms, agricultural buildings) — in the current context of developing green tourism — into rural B & B accommodation, craft trade or leisure activities. The search for a new purpose appears to be of decisive importance because it is the way of ensuring the management and future maintenance of an area and thus preventing any further degradation.

### *Preventing abandonment and degradation*

If the policies of elimination and rehabilitation are to be fully effective, they must be accompanied by a preventive approach aimed at slowing down the processes of abandon-

ment and degradation. **Such a preventive policy may be based upon existing regulations, information, raising awareness, advice and the development of preventive action.** When this policy is applied to «strategic» sites, it can often make it possible to maintain larger areas in «good condition».

In certain fields the preventive approach may be based on the existing regulations, particularly the legislation governing wastes and quarries. Thus the Act on wastes of 13 July 1992 provides that the use of ordinary dumps, like controlled dumps, should cease in 2002.

As far as quarries are concerned, the regulations now considerably reduce the likelihood that an extraction site will be abandoned when work is completed. The obligation on the operator to restore the site was in fact established by the reform of the mining code in 1970. Suitably adapted to the circumstances, this restoration may for example include cleaning up the site, ensuring its safety, and softening the quarry faces or the banks of ponds. These minimum requirements may be supplemented by special provisions such as reforestation or a return to agricultural use. The new Act on quarries of 3 January 1994 further reinforces these regulations in its article 4.2, by establishing the principle of financial guarantees intended to ensure that the site is restored when work is completed. However the regulations do not guarantee the management of the site at that time. Lack of maintenance by the owner of the redeveloped site may eventually lead to degradation.

Finally concrete steps can be taken on the site to prevent the processes of abandonment and degradation. With regard to uncontrolled dumping, this may involve limiting access to areas that attract dumping, by means of physical barriers, by maintaining farming activity until the sites involved are taken over by an urban project, or by cleaning up a site as soon as dumping begins. The installation of waste treatment plants and the collection of bulky household waste are also a means of preventing the spreading of these dumps.

Preventing phenomena of abandonment and degradation also involves efforts to inform, advise and raise the awareness of the local authorities and the professionals (to give them technical advice, inform them about the various financial aids available), but also the public at large, to tell them about the objectives pursued, to procure and encourage its participation in the schemes (like the Ministry for the Environment's «spring cleaning») to change attitudes, particularly with regard to uncontrolled dumping.

Now that the consumers of open space are increasing in number and its managers decreasing, every one should feel responsible for landscape, as well in its daily respect as in its large changes.



# Designing



*In the first two parts, much space was devoted to the subject of designing the landscape; they showed how important it is to understand it, in order to be able to design and to come to terms with its different elements — relief, hydrography, land structure, land use, and so on.*

*Those parts showed speeding-up of the process of change in the composition of the landscape, the part played by history, the various scales, the close interrelation that exists between nature and man's actions in everything to do with landscape.*

*One aspect of design, however — the part played by the different actors and the tools they have at their disposal — has not yet been dealt with specifically, although it has often been just beneath the surface. A large number of actors are involved with the landscape, whether it be everyday landscape or something more outstanding, and each of those actors uses his skills, tools, powers and convictions to play his role.*

*Unfortunately, however, each one still tends to play his own tune without bothering about the others. Such compartmentalised approaches must now become a thing of the past : a more overall approach should be the rule, with everyone pulling together in the same direction to obtain sustainable development.*

*The landscape is our heritage, it is up to us to manage, develop, enrich and preserve it, and thus leave it to future generations without impairing its beauty by thoughtless actions or allowing whole areas to be irremediably spoiled.*





# Actions, actors and instruments



The table pages 338 to 345, while not claiming to be exhaustive, relates the actions described above to the major actors in the landscape, who are responsible for development or are otherwise involved, and with the instruments they have to apply them.

Four main actors stand out clearly. Regardless of whether it is a question of preventing, acting or guiding, or even controlling, the public nature of most interventions must involve the State, the Region, the Departments and the Communes.

The State has traditionally had an important role in the landscape, through the legislation it passes, the awareness campaigns it runs and the projects it undertakes. Its current commitment is less prominent than it used to be with regard to development policies; many of its services are limited to monitoring the actions of the local authorities; all this involves an appreciable change in the distribution of the functions of the public actors in the landscape.

In this context, there have been significant changes in the provisions adopted by the State over the last thirty years under the three regional development plans (*schémas directeurs régionaux*) it has approved in Ile-de-France. The 1965 plan, on which the change in the size of the Paris metropolis was based, and which dealt only with the central conurbation and not with the landscape, was replaced in 1976 by a plan which covered practically the whole area of the region. Taking into account the necessary balances between the conurbation and its expansion on the one hand, and the rural world on the other, this plan tackled two new problems: that of the **landscape**, through a special document which began by dealing with the major landscape issues of the central conurbation (but limited to this consideration) and that of the **green fabric**, which was then perceived as the «organisation of a ranked network of natural spaces, articulated from the heart of the conurbation to the great resources of the natural heritage and the periphery, that lends itself to assuring the recreational, biological and aesthetic functions necessary to the equilibrium of the environment of the region's population».

Accordingly, by 1976, the IAURIF, being responsible for the development plan, had laid down the main principles for the composition of the urban landscape, some of which were to be subsequently taken up. For various reasons these principles were not really implemented at the time. The 1994 development plan, which succeeded it, was more a document concerned with the management of land law than an instrument to guide urban policy; it therefore took up some of the major principles mentioned previously, turning them

into requirements (for example the protection of the fringes of woods and forests covering more than 250 acres).

Applying to local authorities, now fully responsible for their development (and this was only a few months before the responsibility for revising and formulating future development plans for Ile-de-France was transferred to the Regional Council), it was to be expected that the content of the regional schemes should evolve in this way, at a time when the influence of the State vis-à-vis the local authorities, particularly as concerns financing regional development, was out of all proportion with what it was before decentralisation.

In fact, the 1994 scheme may be regarded as a transitional arrangement that will manage the region until a new concept emerges, possibly on a consensual basis, similar to that which is supposed to govern relationships between local authorities, under the control of a State guaranteeing legality and the public interest.

Decentralisation profoundly altered the context of urban development: it is important to recall that the actors who produce and manage the town were essentially put in place by the State and owe their capacity for intervention to its legal and financial power. With this power tending to diminish and gradually be transferred to the local authorities, the number of the decision-making centres is increasing and the rules of devolution are appreciably changing. This state of affairs, as well as a more profound mutation due to many causes (European integration, a reorientation of government priorities, policies specific to local authorities, and so on) are causing the institutions in charge of the town and the rural space (major transport companies, public service contract holders, developers, social lessors, the agricultural profession...) to take a fresh look at their strategies.

**It is likely that in the coming years, new equilibria will emerge from these changes, new actors will appear to play an enhanced role in the generation of the town and the management of rural space and, similarly, in the development of landscape.**

Two sets of major actors are now likely to be constituted: the planners of regional space — the State and the Region, and those who manage this space — the Communes and the Departments. They too have new equilibria to find, while the cards are being reshuffled between the public and private sectors and the responsibility for local development is increasingly close to politics and daily life and, as a result, to the opinions of the electorate or the courts. Their task is as important as it is unspectacular.



# Overstepping the compartmentalised approach



**T**he above table shows how the issues, the actions and the synergies to be found between partners are inextricably bound up together. This overlapping occurs as much in the spatial sense as it does with regard to scales or subjects of intervention.

This extreme overlapping demonstrates how important it is today to move beyond the too compartmentalised approaches in actions concerned with the landscape, as, more generally, those on the environment, living space and the generation of the town. This process should take place at all levels and at all scales:

- Geographically, between the urban and the rural;
- In terms of theme, between living, moving, working, seeking culture, relaxing, obtaining medical care, etc., but also between landscape, development, urbanisation; between water, sewage treatment, solid waste, green areas, energy, and so on;
- Administratively, between State, Regions, Departments and Communes;
- Legally, between ministries, each applying their own laws, decrees, codes and circulars (rural law, urban, environment, mining, forest laws, health law, compulsory purchase law, laws on water, waste, noise and landscape);
- Institutionally, between public and private, between regulation and management;
- Functionally, between objects and the relationships between them, between living beings and environments.

This approach means that all concerned must work together and emphasize the complementary features rather than the contradictions, the systems of relationships rather than the objects themselves.

It is in this way that the projects will be concer-

ned with complex territories, such as that of Ile-de-France or the Paris basin, rather than that of the town alone, the urban-rural relationship rather than an isolated environment. They will be based on the existing or potential solidarities, articulated in space and time, using the synergies between issues within the relevant boundaries, regardless of administrative limits (watersheds, landscape entities, itineraries, areas served, etc.).

## Mobilising around joint projects

One may ask how it is possible to engender landscapes that attract a degree of consensus. Certain approaches have been tried, essentially of Anglo-Saxon inspiration, seeking to be objective and rational, involving the formulation of numerical indicators, multiple-criterion analysis, and so forth. These methods have had little success in France: by definition, the landscape is a subjective entity, and sensitivity is not something that lends itself to analysis by equations. Others have worked in the opposite way, taking the subjectivity of the different actors as the starting point: in this case, the actions taken stem not from the combination of unobtainable objective criteria, but from a situation of negotiation between the desires of these actors. Strategies like this have already had some success in the management of natural resources, which incidentally are more quantifiable than the landscape: this is known as «heritage management»<sup>(1)</sup>, which takes into account all the actors in a particular environment and has the merit of dealing with those factors which, in classical economics, are regarded as externalities.

(1) See Jean de Montgolfier and Jean-Marc Natali, *Le patrimoine du futur*, Paris, Economica, 1987.

Partnership approaches based upon negotiations appear promising as regards landscape, as the examples described hereunder show. Negotiation is not the only factor of success: it is liable to lead only to a conservative compromise, that is not very compatible with other requirements and ultimately satisfying nobody, unless it is organised as part of the search for a joint project that looks to the future and goes beyond the original intentions of each of the actors. It is in this sense that one speaks of a society project, a common objective capable of mobilising the energies beyond individual interests. The actions favouring landscape must not only be society projects, but also creation projects - i. e. desirable transformations of the space that enriches the common heritage. Of course, an intercommunal territory is not modelled in a direct way as a garden, but, to satisfy the inhabitants and users of a locality, it is necessary to go beyond the immediate demands and bring in professionals (particularly landscape and town planners) to work out proposals for the future form this territory should take<sup>(2)</sup>.

**Thus the need is to pursue or undertake partnership projects.** Many of these are already held up as examples; they have mobilised the different actors and their skills and resources about a common project, within a coherent perimeter related to one or more particular issues: the charter for a regional nature park, an intercommunal landscape scheme, a spatially limited project for development or redevelopment (for example an urban road scheme) or one that is thematically defined (laying electric power lines underground). Such approaches cannot be undertaken — and of course completed — unless there is a common will with a common project. A substantial part of the initiative naturally redounds on those who plan the regional space, i.e., the State and the Region. In order to take intelligent initiatives, they develop institutional instruments (agencies and observatories) that correspond to the major horizontal issues that concern their territory: land, waste, health, but also rents, consumption, cleanliness of rivers; they also develop, like those who manage space, technical instruments to assist the projects: information systems, management systems.

It must be remembered that the landscapes of Ile-de-France are not just either picturesque or

degraded, that they are not only the areas where hundreds or millions of people live or the framework into which a project must be inserted as well as possible.

They also constitute an economic issue. An economic issue for the landscape professionals of course, but also, and increasingly, for the traditional sectors of building and public works. An economic issue for the local authorities and the enterprises that seek to attract jobs or to establish themselves in a quality environment. An economic issue as a rich and acknowledged heritage, with which all can identify, that all may, in a certain way, acquire, which is able to polarise material and cultural interests, in the first rank of which is tourism<sup>(3)</sup>.

It is therefore essential to move out of the old ways. The landscape is not a cliché. It is not just a village and its bell tower in the midst of the countryside which must be kept unchanging forever. Nor is it just any old piece of the country that is developed without abiding by the rules, whose harmony can be destroyed without consequences.

The landscape is an organised entity, and this entity is a common good, which has to be managed and helped to evolve without undue shocks and without slow degradation.

**Three projects that directly concern the landscape are described below**, all concerned with different themes, spaces and scales. Each one illustrates the partnership approach with regard to a common project. **This description is supplemented by two papers given at particular times by the State and the Region**, setting out first their will to take action with respect to the landscape, moving forward with their own specific approach and, secondly, their ability to criticise what is going on in this field: they are a review of the arrangements proposed in the 1976 development development plan (SDAURIF), innovative at the time, and the study of the major landscapes of Ile-de-France produced in 1994-95 by landscape architect J. Sgard and edited by the IAURIF, under financing by the Region and the State.

(2) See Pierre Donadieu, «Le projet de paysage, un outil de négociation», in *Paysage, grand paysage. Les Cahiers de l'IAURIF*, No. 106, December 1993.

(3) Ile-de-France is holding its own in France, which in 1996 received over 60 million visitors, and remains in the first rank in this field.





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