The Presentation is the Project
Dominik Lengyel
Lengyel Toulouse Architekten, Germany

Projects which have not been realised live only in the imagination – at first in the heads of the builders, architects and planners and later in the heads of the general public. Sooner or later, the idea takes on the form of a presentation and here vividness is a decisive factor in the persuasive power of the project itself. Architectural visualisation draws on the experience of photography and painting and employs their instruments and techniques to generate a suggestion of reality. The preliminary planning of a visualisation means working out the essential aspects of a project.

Photography
The location of the shooting is obviously of the utmost importance. And an important prerequisite for this is spatial imagination. The line of vision is closely connected to the ultimate view shown in the photo, but also permits variations comparable to the parallel shift made possible by large format cameras. Hereby the actual information given in the photo - and its extent increases with the angle - is far less important than the selection of the elements shown and the relationship between the central object and its surroundings.

Painting
There are many other factors besides photography which essentially influence the intrinsic meaning of a picture. In few cases, is the positioning of the sun adequate for lighting. With a few exceptions, a diffuse general light and a multitude of punctual light sources are needed. Therefore, the choice of time is important. Besides the rough difference between day, night and twilight, the time of day can reveal itself in the angle of the sun's rays and in the colourfulness of the light. Seasons can also be important for the representation of a project. Out of doors, this is most simply achieved through the appearance of the trees. The total colourfulness conveyed by the character of a place can be made clear by the contrast between the atmosphere of an industrial district and a park. The sharpness of the
falling light shows naturally the weather and this directly influences subjective impressions. The plasticity of a perspective can be worked out by the use of shade. But also the general spread of the luminosity, in combination with the repletion and contrasts of colour, influences the depth of the picture and thereby the plasticity of the composition as a whole. In selecting colour, it must be remembered that colours mutually influence one another, that is, in other surroundings they produce a different impression. A visualisation must be seen as a picture – a picture whose colours are determined by its artist. In the same way as in a painting, every colour is deliberately introduced. And just as in painting, all impressions are illusions, so the materials used are also only a representation. As a rule, real material is simulated, but the statement made by the picture can also demand an abstract representation. What is decisive is in how far the focal point of the statement made by the picture is to be dependent on the materials used, that is, on the conscious perception of the material. The viewer unconsciously and spontaneously sees the material that is closest to what is depicted or that fits the situation best. Thus there is actually no need for an exact representation, in so far that the initial impression is not deceptive. More clarity or detail in the foreground can be helpful, for example, in utilising the emotional impact of the material.

**Realism**

It is frequently not wished to give the impression of a photo. Rather, the abstraction which the plan made possible, should also come into play in the viewing and evaluation of the visual representation. When the concrete and abstract dimensions of a picture are not homogeneous, the recognition of the concretization of the abstract will be clouded: Thus, the abstract could unconsciously be interpreted as concrete, when the concrete, for example, through the insertion of a photo, is perceived and accepted as concrete. Models of trees, for example, have the advantage that they resemble models of buildings more closely than photos of trees. Thus, through a similar degree of realism in planning and stand, a total harmony is achieved.
Efficiency
The process of planning can be accompanied by visualisation, but can also precede it. In the case of an accompaniment, however, visualisation must be very flexible in order to allow quick alterations or to show problems clearly. In the case of visualisation after the completion of the plan, the time available is often very short, as the planning is so time-consuming. A detailed preliminary planning of the visualisation project is decisive for a punctual success. Firstly, the geometry must be structured and its modularity and exceptions examined. After successful structuring, a schedule must be drawn up that distributes the work to be done among the available workers.

Perspective Development
Because we are convinced that the immediate visual impression is an essential part of any project, our own planning activity takes place, to a great extent, in the field of perspective. In the initial phases, we operate with perspective sketches drawn by hand and in a further phase, a virtual model becomes interesting. For the simulation of
urban geometry as influenced by one's own project, computer visualisation is meaningful at a very early stage, because a virtual model is more flexible than a sketch drawn by hand. In this way, the transfer to computer supported work runs smoothly. For visualisation commissions, it is of vital importance that the client provides a detailed conception of the project and especially his design ideas. It is vital to work out the essential aspects of the plan and possibilities to present them visually.

Consultation
Taking into consideration the actual substance of the plan and the architectural speech of the client, we then make suggestions as to how the project could be presented. The early stages are often handled without sufficient detailedness. The closeness of the virtual camera to the object and the realism of a visualisation demand a detailedness that up until then, has not been undertaken. Therefore, the boundary between the visualisation which accompanies the process and the final visualisation is often flexible. Nevertheless, it
is seldom that all details are clarified. The finer the details, the more often are we as architects requested to make our own decisions. Experience with ordinary models often leads one to presume a certain abstraction to be a matter of course because the model mostly consists of a single unprocessed material, such as wood or cardboard and completely dispenses with any representation of material. However, this practice which is common in model construction, cannot be adopted in visualisation. With regard to realism, different intentions in statement lead to different methods in visualisation. For example,
moveable objects such as people or vehicles can be used to show the scale or utilisation. Of course, at this stage, atmosphere plays a great role. An empty foyer may be desired, but if it is to be furnished with a reception counter, the latter must be described in detail. If the plan is of the kind that merely prescribes a rough cubage, we convert this into a piece of furniture and discuss further details with the client in an intermediate presentation. Building additions, in principle, are a part of architectural planning. On the basis of mutual needs, a very close cooperation can result. With the help of the Internet, the
telephone conversation becomes a video conference – the client can follow the process almost simultaneously. Thus, high quality visualisations of any type can be produced successfully. It is irrelevant for us as also for the client, in what form the information is given. This promotes general acceptance of the extraneous production of visualisations, as there are no extra costs for the client.

**Geometry**

The visualisation which accompanies planning, leaves much open through a harmonious construction of the whole geometry. The only information which is necessary on the model, is that which is directly visible in the perspective. In the extreme case, the model construction can be restricted to a coulisse. In practice, however, a model is an architectural mixture of the whole and the facade. Ultimately, what is important is not the amount of data, but, above all, the time investment and a consistent hierarchical arrangement and typification of the building elements.
Early Photographic Decisions
Above all, in the planning preliminary to the visualisation, an early determination of the photographic parameter is to be recommended. In the subsequent phases, it is better to restrict information to the essentials. It is a matter of experience in how far in the actual building of the model, the exact reproduction of reality should be targeted. The result must always be kept in view. Clarity in structure and a control of data are equally as important as well as an exact knowledge of the functions of the rendering programmes, as methods, possibilities and results vary greatly. The most suitable renderer should be selected as soon as possible in order to be able to take these differences into consideration during the development stage. In order to do this, the effect intended by the perspective must be clarified. The rendering which follows builds an important turning-point in the visualisation project. It is the final automatic operation on the way to perspective.
Reworking

The result, the picture, is a manual product. Software only helps as well as it can and as efficiently as it is employed. Much of what distinguishes an balanced picture first takes place in the reworking phase – a phase whose requirements extend beyond the possibilities of CAD and Rendering. In making the picture, the total colouring, tonal gradations and luminosity must be reworked and extra elements introduced. Many realistic features need to be represented in a pictorially exaggerated way, in order to make them clear. As in painting, certain results can only be achieved through deliberate manipulation. For example, colours, in reality, have a very strong influence on one another and this is a feature which a computerised rendering (apart from the very complicated and time-consuming radiosity process) does not take into consideration. It is true that many parameters can be influenced in rendering through the definition of the material used for the object and the lighting. But the finer details must mostly be done by hand afterwards. A typical example of the limits of the efficiency of rendering in the construction of a perspective is the insertion of photos of moveable objects. In so far as a realistic portrayal of a person is to be made in the picture, the position of the figure must harmonize with the perspective. In accordance with their size, vehicles must be placed very precisely. They are much less amorphous than persons and therefore at this point one could think about inserting them as modelled objects. This brings many advantages and saves a great deal of reworking. The position is immediately in correct perspective and shadows and reflections are also calculated by the computer. In contrast, plants and trees, very filigreed, because of the enormous amount of data, demand the highest computer capacity. Insofar as the computer is capable of processing the data, decisions are made on the basis of the degree of realism desired.