

The History of Gardens and the Evolution of the Environment

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There exist a number of fundamental works on the history of the art of laying out parks and gardens which give an excellent picture of the subject based on a comparison between contemporary works and works belonging to the different stages in the development of which they are the final outcome. However, in such books the finished gardens are considered independently of the progressive changes made by man in his treatment of the natural landscape. When analysing this approach one may compare it with that adopted by some researchers towards certain well-known architectural works, which used to be viewed as though they existed independently of the immediate townscape, whereas in reality the history of a town's development will furnish the clue to better understanding of the changes in its composition and the inclusion of new town-planning features and new structures.

In this respect, landscape architecture theory has not kept pace with town-planning theory, since it continues to be based on the study of individual works. We are in need of a single theory of park and garden design enabling us to determine, for each period in history, the relation between the individual work of landscape architecture and the man-made landscape and environment. Such a theory would involve an investigation

of the formation of the garden image, since this image will be the expression of an attitude towards nature at a given stage in the development of civilization. An "image" in landscape architecture is something specific to its own field.

All landscapes, whether natural or artificial, create a certain aesthetic impression, either an accidentally formed image or one intentionally designed by an artist. Taken together, the individual images of actual landscapes will serve to give a general picture of the man-made or agricultural landscapes of their period. And the original creation in garden design will be either a reflection of various aspects of this contemporary landscape or a rejection of them. In their turn, the existent gardens of original design will collectively produce an overall image of the gardens characteristic of a given school in a given age.

Different creative approaches to the environment will produce different general images, each with its specific features. In the process of historical development, each approach has been embodied in a number of styles.

An objective analysis of these different types of collective or general image and their emergence under given historical conditions can provide an effective instrument for an understanding of

the laws of garden design.

If we take the general image as a criterion when classifying our subjects of research, we can cover the problem on a broad scale and draw comparisons between garden design as it developed in different countries and under different natural and historical conditions. The adoption of this method by no means involves rejection of other approaches to classification and analysis, least of all those based on the general laws governing the formation of style in architecture and in garden-design and on the public role and functions of gardens. But in analysing garden-design in the light of the transformation of the environment from one period to another we are discovering new and more general laws.

The method of research adopted consists in systematic comparison of the use made of natural surroundings (i.e. the formation of the man-made landscape) with the same process as reflected in the theory and practice of garden-designing. Individual works were chosen for analysis in the light of their importance in the general picture of development. Quite apart from other considerations, this has made possible an exploration of the process by which certain images periodically recur and the discovery of the reasons for this phenomenon.

The practical significance of this paper derives from the nature of present-day tasks in connection with the preservation of the historical and architectural heritage. Ever since the Soviet state came into existence, the party and the Government have steadily pursued—as they are still doing today—a policy of conservation and rational utilization of the country's natural resources, and protection of its historic heritage of

great monuments of the past created by the brotherhood of peoples of the USSR. This policy provides us with extensive opportunities for preserving and restoring works of landscape architecture as monuments of the past which, in view of their particular nature, are also in fact a part of our country's national resources. Their rational utilization has become especially important in that they offer us a substantial amount of space suitable for use by the public for rest and recreation. However, this heritage of works of landscape architecture is no less important as a factor in the reconstruction of towns and areas, a task now assuming ever-increasing importance. The principles established in this paper may be applied in this latter field both to the planning itself and to the theoretical research connected with it.

1. Processes in the Formation of the Environment as reflected in the Art of Garden Design

It should be noted that there are significant differences between man's perception of a natural landscape and his perception of a landscape made by man.

The impact of a natural landscape is a matter of overall perception of what is first and foremost an assemblage of diverse and sometimes contrasting types of feature. Only some man-made landscapes offer a harmonious impression (one of the reasons being the adaptation of individual features to suit given purposes instead of treatment of the landscape as a single whole). Hence one of the most important tasks in the creative sector of the landscape architecture field has always been harmonization of surroundings and the creation of a concerted unity conciliating conflicting demands.

In the present paper we have attempted

to show four different approaches to the visual aspect of garden-design, based on four initial principles namely:

1. creation of a landscape in accordance with the laws of architectural composition.
2. organization of a landscape on the basis of a visible rational principle (deriving from its productive function).
3. direct reproduction of the natural features of the landscape (primarily its vegetation).
4. representation of an existent landscape, either real or imaginary.

Having listed four conceptions of garden design, we are now in a position to ask a number of questions:

- a. Do all these approaches equally express an objective process of reflection of the environment in the artist's creative consciousness?
- b. Are all of them equally promising from the point of view of further development of the creative outlook in landscape architecture?

In order to answer these questions it is essential to analyse the history of landscape architecture as the history of the general image of the garden as it can be ascertained in its variations from age to age. Such an analysis may be based on a certain number of works of landscape architecture forming part of the international heritage and on historical records describing works belonging to a variety of periods.

2. The general Image of the Garden at different stages in history

The "architectural" type of garden design was based on mathematical laws as expressed in the system of architectural proportions adopted. The garden was thought of as a medium for serving certain essential purposes, primarily recreation. At the same time it provided

the surroundings of an architectural work - a further extension of the building and a means of giving it a special distinction and importance.

The functions of the architectural garden are as varied as those of a building. Most surviving works of landscape architecture belong precisely to this group.

It might be well here to list the general features of gardens of this type:

- a. Dominant role of architectural structures and members in the composition of the whole.
- b. Particular attention paid to variations in level as the most "architectural" aspect of the landscape; almost exclusively decorative use of water for accentuating aspects of the architectural design.
- c. Disregard of the natural properties of vegetation, except insofar as vegetation is amenable and adaptable to artificial, architectural shapes.
- d. Use of the same principles of layout and spatial composition for external as for internal space.
- e. Predominance of the "non-productive" principle in the composition of the garden and its system of visual effects.

The second type of garden is treated as an ideal version of a cultivated plot; a harmonious combination of human effort and natural forces produces an impression of equilibrium as a basis for the visual image of the garden.

It is possible, with the aid of the surviving gardens and the available descriptions and pictorial records, to list the following features as generally characteristic of gardens of this type:

- a. Layout involving a number of separate plots, the size and shape of which were dictated by economic or by agricultural considerations.

- b. Existence of an individual "water factor", since the system of use, and hence the plan, of the garden depended entirely on its water supply and drainage system.
- c. Use of trees as standard elements in the design of the spatial structure of the garden.
- d. Isolation of each plot from the rest ("gardens inside the garden") and of the garden as a whole from the area outside.
- e. Subordination of the recreational to the utilitarian function (for example, provision of seats in the shade of a vine or fruit-tree, etc.)

A third type is the "natural" garden, based on the preservation of nature or its re-creation by direct reproduction of natural features. This is considered to be the most recent type of garden it developed as a reaction against the process of urbanization and the subsequent worldwide exploitation of natural resources. There are practically no surviving gardens of this type dating from remote periods in history. Doubtless those artificial landscape which were created on an analogy with existent ones and under the same natural and climate conditions frequently "dissolved" into their surroundings, while those laid out in unfavourable surroundings proved to be short-lived, quickly lost their "natural" aspect and perished.

The general principles underlying the characteristic appearance of such gardens may be outlined as follows:

- a. Use of vegetation as the factor determining the garden's appearance, with plants grouped either on the principle of recreating those combinations which exist in nature, or else with a view to colour effects.
- b. Composition as a whole centred on

artificial ponds or canals imitating natural rivers or lakes and providing suitable conditions for the growing of plants.

- c. Paying of more than usual attention to the natural peculiarities of the vegetation, which it is earnestly sought to preserve notwithstanding differences in environment.
- d. Attempts at achieving the illusion of greater size, combined with apparent isolation (for example: planting along what looks like the boundary of a "wild forest", dense hedges, etc.)
- e. Predominance of decorative functions, apparent in the zoning, the choice of locations for planting, and the attempts at "disguising" the more unattractive plots.

The fourth approach is based on the idea that a garden is an imitative work of art.

We may say that such imitativeness is particularly to be found at periods when the direct connection with prototypes has been lost. The gardens of this type have their sources not in nature but in conventionally romantic painting, or sometimes in literary descriptions. They may be designed on one of two different principles, each involving a given attitude towards movement in space. They may either follow clearly traced itineraries, each offering a succession of views, in which case they are perceived as a series of pictures, or else the movement may be free, in arbitrary directions, so that the spectator viewing the whole composition sees a variety of combinations of volumes and spaces.

Despite the formal diversity of such gardens, there are a number of general principles determining their system of construction:

- a. Underlying their composition there

is a complicated scheme of movement dictated either by the layout of the walks or by the garden's orientation in space.

- b. There are no clear divisions which might suggest a deliberately planned and harmoniously composed park or garden.
- c. There is no central feature in the design, whose architectural elements are treated as parts of a spatial structure based on contrasts between solid volumes (banks, large tree-covered areas, clumps of trees) and empty spaces (stretches of water, clearings, paved areas.)
- d. They are designed as enclosed areas inside park fences, to avoid interference with their imitative character on the part of a real landscape outside.
- e. Their appearance has an artificial character deriving from idealized, literary notions of nature and reality which contrast with the nature and reality of the real world.

A historical analysis will show that creative landscape architecture has continued to develop in accordance with these four trends, which exist simultaneously. The trend which will dominate in any given country will be a matter of the conditions of its historical development, its specific natural features and landscape and the peculiarities of its national culture, while their influence on one another has a positive effect, one cannot replace another, since each equally reflects given laws governing utilization of the environment.

3. Comparative analysis of the History of Garden Design and of Changes in the Landscape.

If we compare the process of gradual emergence of a man-made landscape with the development of original garden design, we will find that, at all

periods in history, the former process comes to be reflected in the latter. We are visibly in the presence of two regular phenomena fully in keeping with the laws governing the reflection of reality in art, i. e.:

1. New processes by which the landscape is altered, each of which marks the beginning of a period in the history of man's influence on his environment, necessarily find their artistic expression in the form of outstanding works of garden design.
2. Such works do not generally appear until a few decades after the introduction of the new processes in question.

This second phenomenon is probably to be explained by the fact that a certain period of time must elapse for there to be general awareness of the changes taking place in the environment and for an attitude to emerge in the mind of the public.

Man-made landscapes created as a result of the adoption of new-found processes have occasionally been located in the immediate vicinity of gardens, but more often they have been totally separate. The further development of society has often accelerated changes already in progress or brought direct changes in existent landscapes. Yet even the most "mobile" man-made landscapes, which have changed over and over again to suit new requirements, have always evolved, at each stage, in the light of the conditions existing at the preceding stages; in other words, each landscape has had its own history as a developing phenomenon.

The notion of "historic landscape" has thus emerged within the context of the history of landscape architecture and its emergence reflects the extension of the scope of research on the

evolution of landscape in the course of history.

Each historic landscape, like any other historical monument, embodies in a special way and by a special process a given stage in the development of society. Under the heading of "historic landscape" we may in fact include not only historic gardens but a great many other historical monuments or monuments of the past.

The gardens laid out in the past have always had a given spatial relationship to the surrounding landscape.

This could be of two sorts:

- a. The garden was a focal point, an embodiment of the essence of the surrounding landscape and its structural centre, deriving its characteristic appearance from the peculiarities of its surroundings;
- b. The garden was an element designed to contrast with its surroundings, in which case its appearance was a reflection of landscape or architectural features which had little in common with these.

Where a park or garden is laid out round a farmstead, the influence of the surrounding fields remains clearly visible. With rare exceptions, this is true of almost all Russian gardens, irrespectively of the group they may belong to.

All of them - kolomenskoye, Lefortovo, Archangelskoye and the rest - were initially laid out in the light of their visual relationship with their surroundings.

Russian gardens laid out in the vicinity of towns were regarded as focal points in the general layout which determined the spectator's spatial perception of the entire historic townscape. An example of this is the section of the Moscow river valley as seen in conjunction with the town of Bronnitsy and

the remains of the gardens of the country residences of Markovo and Kryvitsy.

By analysing the above mentioned four groups - each of which is characterized by a given type of general aspect - and viewing them in the light of the development of human use of the environment, it has been possible to work out a classification for all gardens of original design. This is intended to embrace gardens of all types, whatever their natural surroundings, climatic conditions and related urban layout, their size and function or their period.

For purposes of logical classification one single criterion was adopted, namely, relation to the environment. To meet this requirement, it was necessary to leave aside any attempt to view the development of garden design as a reflection of the development of architecture, and any analysis of form and aspect in architecture and garden design according to period (Renaissance, baroque, classical, etc.).

4. Influence of the historical heritage on the formation of modern attitudes.

Both in the academic and the practical sense, the historical heritage in the field of garden design is being treated in an essentially new way. Research and planning are for the most part concerned with the protection and restoration of existing historic gardens.

The listing and classification of historic gardens are done in different ways according to country; the criteria for the assessment of their importance and state of repair, as well as the method of approach to their restoration and protection, also vary from one country to the next. However, there is one central document - the world List of Historic Gardens drawn up by the ICOMOS/IFLA Committee for Historic Gardens

- which can be regarded as a basis for an analysis of the surviving gardens of the past.

All landscapes, including works of landscape architects, are moving and unstable things. They constantly change with the passing of time, taking different forms, and "ageing". Changes in deliberately designed landscapes occur in the course of their natural development and as a result of the dying-off of their vegetation. All existent works of landscape architecture have lived -depending on their age - through five or six different stages in the history of their vegetation. The more stable features - water, and the physical features of the ground - will undergo less change, but they too are governed by the natural laws of gradual change in landscape. As a result, the garden seen by each successive generation is somewhat different from that seen by its predecessor.

The process of adapting a garden to new types of use regularly involves substantial alterations. These may be divided up as follows:

- a. radical alteration with a view to a deliberate change in appearance or composition.
- b. interference due to the putting up of new buildings on the site.
- c. alterations due to the building of roads and the creation of public utilities.
- d. changes due to an increase in the number of visitors.

The most complex problem relating to general appearance is that of restoration or reconstruction of the individual work. One may find quite a number of works whose characteristic appearance has been altered through restoration, and this is a constantly growing tendency today, typical aspects of which are simplification of the original struc-

ture, extension of scale, or omission of certain details of the decoration, the result being a new general appearance distinct from the original one.

The appearance of any work of landscape architecture is, we have said, something unstable. The perception and interpretation of the appearance of any concrete phenomenon will vary as a result of physical changes, social and economic reorganization and the evolution of public opinion. As a result, this appearance as it were finds a life of its own and can influence the subsequent development of landscape.

A particularly important aspect of historic gardens has always been their role in the improvement of aesthetic standards in landscape planning.

From an analysis and study of the peculiarities of the development of garden design as seen in the vast field covered by those gardens which have come down to us, we have been able to draw the following conclusions;

- a. The present - day outlook of the designer should involve a radically new conception of the heritage of parks and gardens, suited to both the theoretical and the practical tasks of the present day.
- b. The characteristic appearance of any garden of original design is always the outcome of given solutions to a number of special problems connected with the treatment of nature; this is clear from a retrospective analysis of those historic gardens still in existence.
- c. The historic gardens of each period are in a given style in the history of architecture corresponding to a given use of space. Taken together they provide a historically-based general image of the garden as designed at that period.

- d. Present-day histories of garden design do not give a description of the objective development of the various creative trends - a development which will naturally be irregular - but describe only its individual phases in their respective historical and social contexts, and it is these individual phases which primarily attract the attention of researchers. This accounts for the tendency to concentrate on individual gardens and to underestimate the correlation between the development of landscape architecture and the treatment of the natural Landscape, while at the same time underestimating the extent to which that natural landscape is steadily transformed by the hand of man.
- e. A typical feature of art history research - including research in the history of landscape architecture - is the tendency to concentrate on individual works of the past. In this way a work acquires as it were a static image "preserved" in a theoretical universe, whereas in the mind of the public and in contemporary architectural practice it has acquired a new life.
- f. It is impossible to make an objective assessment of the artistic value of a work of landscape architecture without making allowance for the fact that its appearance is something unstable, that it undergoes changes with the passing of time as a result of the purposes it is made to serve, the alterations occurring in its surroundings and the changes in the attitude of the public; its appearance will be determined by the fact that it forms part of the general image belonging to the works of its particular category.
- g. At the present stage in the history of landscape architecture and the development of its theoretical basis it is not enough merely to analyse the design of the individual work, or even that of a whole series. The attempt must be made to discover the principles determining its appearance, which will be a reflection of its role in the development of attitudes towards art and towards the environment.
- h. The historical period under review has seen the development of four main trends in landscape architecture. These four trends will emerge most convincingly if we examine a few outstanding works of garden design in conjunction with the lesser gardens of the same periods which we might call their satellites. These minor gardens will reveal the general trend more clearly than will single works isolated from their historical context.
- i. Each of these four trends is characterized by a given idea of what a garden should be, which is expressed in the quintessential image of each. We thus have the architectural garden, the rational garden, the "natural" garden and the imitative or "picturesque" garden. All four are based on objective principles of treatment of nature and harmonious correlation between nature and man.
- j. If we accept this thesis of the simultaneous existence of these four trends in garden design we can discover a correlation between the process of utilization of man-made space and the general manner in which it is reflected in the garden as a work of art. Hence historical and theoretical research in garden design may help to solve present-day prob-

lems relating to the rational formation of the environment.

- k. There is a close connection between historical analysis of the laws governing the creation of visual effects in landscape architecture and the forecasting of their future development. It is possible to picture the development of landscape architecture as a continuous and permanent process, belonging to the past but at the same time oriented towards the future. When seen as a part of this process of development each individual garden or group of gardens acquires a new significance as a centre which, at a given moment in history, has been the focal-point of the man-nature relationship.