

THE HISTORICAL GARDEN IN GROWING CITIES

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The main dangers to historical gardens are undoubtedly connected with urbanization. There is always a possibility of restoring a garden that has been simply neglected; but urbanized surroundings often destroy a garden, ecologically, visually and sometimes physically as well.

The different problems of conserving a historical garden in a fast developing city may be seen in Moscow's many historical gardens. The cases are far from identical. Some of the parks have existed in city surroundings for years, and have been used as city recreation grounds for so long, that their historical significance has been all but forgotten (Ostankino, Lefortovo, Razoumovsky garden). Others have been engulfed by the spreading city in the last few years, and are influenced by these changed conditions (Kouskovo, Arkhangelskoye, Tsarytsino), although this influence is felt in different ways.

The most obvious danger is the fast increase of the amount of visitors, damaging even to gardens, carefully preserved as museum. A good example of this is the fine garden of Arkhangelskoye, planned in the beginning of the XVIIIth century (which makes 70 or 80 years older than the existing house).

The gardens are laid out on three terraces, of which two, with their stairways, walls and statues, serve as a base for the house, and the third, a smooth plain lawn, measuring 70 by 210 metres, forms a link between architecture and nature—the lovely view over the river.

Arkhangelskoye's green carpet symbolizes the wide space of the rich river meadows, which used to be seen framed by two greenhouses at the end of the garden. These greenhouses were replaced in the 1930-ies by two rather massive sanatorium buildings, which nevertheless, retained the "framing" effect. The house itself became a museum, receiving, with the garden pavilions, great attention and care. The museum is one of the most popular in Moscow, and visiting rates have been rising so quickly, that now walking through the garden on a Sunday is no easy thing. This makes Arkhangelskoye one of the gardens, which, though quite well preserved up to now, are quickly succumbing under the stress of excessive visiting.

The problem of overuse is also crucial for a very different type of park—the romantic "wilderness" of Tsarytsino, with the ruins of Catherine the Great's

palace (never finished) and pretty park pavilions. Surrounded by large new housing developments, which have blocked some of the vistas designed by the architect V. Bazhenov, the park is used for picnics, sports and even camping. Another romantic XIXth century park, Kouzminky, suffers from the same sort of active and careless use. It seems that these picturesque landscapes, their design rather blurred by overgrowth, give people a feeling of being in natural surroundings, to be used freely, while a formal design seems to require some of discipline.

This may be seen through a comparison with Kouskovo, once the site of Moscow's most important fêtes and theatrical festivals.

Kouskovo's gardens and lake were laid out in the beginning of the XVIIIth century, although its best period came between 1750 and 1780, when the gardens were finished and the pavilions and existing house were built. Nearly all the work was done by the talented architect Argounoff, a slave owned by count Sheremetyeff.

The formal garden of 31 hectares, enclosed by a canal, was divided into three parts; the lawn parterre between the house and the greenhouse at the end of the garden, and shady groves with pavilions in the middle. An interesting point is that the "green rooms" of Italian and French gardens are replaced in Russia's climate by garden houses, to be used in cold and rainy weather. In Kouskovo one of them is the Dutch house, reflected in a small pond, joined to the lake by a miniature canal; it was once surrounded by a tiny "Dutch garden" of tulips.

Kouskovo, famous for its actors and musicians, had a unique open-air theatre, ruined in 1894, but still restorable.

The large green territory of the city park, surrounding Kouskovo, is quite capable of receiving thousands of visitors. This makes it possible to focus attention on the replacement of the trees and shrubs, overgrown, and falling apart. This will inevitably lead to its closing down for a rather long period. Kouskovo being one of Moscow's favorite parks, this fact raises some problems of its own.

The existence of sufficient green space near the historical garden is clearly essential to its conservation, but this fact has but recently come to the attention of city planners. Up to now historical gardens and parks, some of them quite large, have been summed up with other existing and planned green spaces of the city, to make up the 12 square metres of green space per person, specified by rules of city planning in the USSR. Only in the process of working out a detailed plan of Moscow's green territories, based on the General plan, has the category

of "special parks" (historical gardens among them) been accepted, meaning that these parks are added to the normal acreage of green spaces, based on the number of Moscow's citizens, bringing the total number to 18 square metres.

This is very important, as a way of relieving the stress of day-to-day active use, under which many historical gardens are simply crumbling away.

City parks designed for active use and adjoining the historical gardens they are meant to shield are planned near Kouzminky, Tsarytsino, Kouskovo. But in some cases the problem remains unresolved. For instance, in the Northern zone of Moscow the Ostankino park, a historical garden, is itself used as the buffer park, taking the stress off Moscow's Botanical gardens (a special park in its own right). This is one of the most difficult cases in Moscow. The total of 18 metres per person, distributed unevenly among Moscow's zones, comes up to 50 metres in the Northern zone, mainly because of VDNH, a large exhibition park, the Botanical gardens and Ostankino. Yet this very zone is the one most lacking in green spaces for active use (skiing, for instance, is prohibited in VDNH and the Botanical gardens, and should be in Ostankino, if restored).

Ostankino has long been used as a city park of culture and rest, yet the main points of its design still exist and its restoration is quite possible. This is all the more true as the park's surroundings retain something of the original open character (it was described in the XIXth century as rising unexpectedly among the fields). The open space belonging to the new television tower and the reconstructed old lake in front of the house and church give the necessary effect. On the other side Ostankino is separated by a creek from the large territory of the Botanical gardens.

Ostankino's restoration is especially desirable, as it is historically inseparable from Kouskovo, described above. Built only a few years later, and by many of the same artists, builders and gardeners, the park is nevertheless very different in character. Kouskovo and Ostankino illustrate the transition from the formal treatment of the landscape (as in early St. Petersburg gardens—Peterhof, Strelna, Oranienbaum) to the romantic approach, stressing the natural features of the site (as in Arkhangelskoye, and the great parks of Tsarskoye Selo and Pavlovsk).

Moscow's General plan contains an idea of forming a chain of green spaces along the small river Yauza (to be cleaned and reclaimed, according to the plan). The valley of Yauza, once a picturesque stream, flowing among meadows and low hills, used to be a collection of houses and gardens, forming an aristocratic dwelling region of XVIIIth century Moscow. Most of the sites were parcelled out and built up in the XIXth century, but a few of the old garden sites still exist, forming

the main points of the new plan.

Of these, one of the earliest is Golovinsky garden. A simple residence with a wooden house, it was purchased in 1721 by czar Peter for his own Moscow residence. In the planning and layout of the new gardens an important part was played by Nicholas Bidloo, a Dutch scientist and doctor, who, at the dead of King William of Orange, came to Russia on czar Peter's invitation. The work was mostly done in 1722-24. The gardens included a system of canals, pounds and grottoes, along which a vista opened on the quiet-flowing Yauza and the green shores opposite.

In 1731 the gardens were enlarged by the building of Annenhof, a garden situated on the top terrace, behind the new palace. This was done by Rastrelli. A little earlier part of Franz Lefort's garden was added, and the gardens were sometimes called Lefortovo--the name most often used now.

After several fires the upper gardens were destroyed, and Lefortovo came back to its original size. A great part of the garden has been changed because of use as a park of culture and rest (for instance, sport fields were built). The view along the main axis has been blocked by a large office building on the opposite shore. But the water system still exists, and with it, one might say, the soul of the garden, subtly reminding one of the great water landscapes of St. Petersburg.

Another example of Yauza's gardens are the grounds of Razoumovsky house, where the Institute of Physical Culture is now situated. This is a very old garden site, first laid out in the XVIIth century by David Bahart, a Danish merchant, and known as Bahartov house. It was rebuilt in the middle of the XVIIIth century as an intricate five-part garden, with three vistas opening on the Yauza valley. Later, when Razoumovsky house was built, the gardens were redone once again, along simpler lines. The parterres have now been turned into sports fields belonging to the Institute, although in this way most of the terracing has been preserved.

Vysokye Gory, a XIXth century garden in the romantic style, is rather better preserved, although here the planting has been changed by adding to it, with the view of separating the grounds (now belonging to a hospital) from the surrounding city.

The Yauza valley restorations, as well as others planned in Moscow, bring up the very serious problem of organizing special nurseries, making the needed trees and shrubs available for replanting the historical gardens as their turn comes along.

This, perhaps unexpectedly, comes up as a great problem, not only in Moscow, but in other cities as well, even in Leningrad. The restoration jobs being now done

have to rely on the city nurseries, which, as there are too few of them, hardly fulfill the needs of current landscaping; Another point is that planting the city's new green spaces is mostly done the cheapest way, with young saplings, while the old gardens in Russia were made by replanting large trees. It may be mentioned, that for some years czar Peter imported large trees for his new gardens from Haarlem; there is a 1713 letter from him to Courakin, the Russian ambassador in Holland, ordering two thousand linden trees six inches around. Imported trees did not acclimatize very well, so later great numbers of trees were obtained in different parts of the state, almost all of them of 20 years and more. It might be said that the gardens were put together from ready-made elements, giving instant effect. Fir trees, white birches became popular, with some oaks and chestnuts in the warmer parts. Apple, cherry and plum trees were often used in gardens, prized for their bloom, as well as for the fruit they brought. The more important gardens had their own greenhouses, growing laurels, orange and lemon trees, used for decorating the gardens in summer.

All these trees, as well as boxwood for the parterres, are still grown in Moscow and other cities. But modern nurseries simply don't grow a sufficient amount of trees to the age necessary for restoration work.

Flowers are less of a problem, because Moscow's gardens never relied much on flowers in their design, emphasizing lawn and water and shady trees, with lilacs blooming in June and, in the more formal gardens, a more or less intricate clipped parterre.

The absence of specialized nurseries is perhaps the strongest obstacle which must be removed, if the planned garden restorations are to be carried out.

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HISTORIC GARDEN PRESERVATION IN THE UNITED STATES
ITS HISTORY AND PRESENT STATE

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In 1856 the State of Virginia granted a charter to an organization called the Mount Vernon Ladies Association of the Union and thereby established the first legislation for historic preservation in the United States. The charter enabled the association to purchase, preserve and maintain the estate of Mount Vernon on the banks of the Potomac, the home of George Washington, General of the Revolutionary Armies and first President of the United States. The establishment of the Ladies Association and their efforts at Mount Vernon should have augured well for the preservation of historic gardens and landscapes, for they were interested not only in the restoration of the house, a modest example of a plantation house, but also in the restoration of the gardens and agricultural land of Washington's estate. Today, the gardens rank as one of the most carefully studied and accurately restored historic gardens in America. Unfortunately, the example provided by Mount Vernon was not followed, and historic preservation since then has been more concerned with structures than gardens, while the techniques of archaeological investigation and accurate restoration now used almost routinely for historic buildings are rarely applied to gardens.

You may well ask what there is to preserve in the United States, so before I discuss the state of preservation today, I should like to show you a few examples of our garden history. Early settlers brought with them not only the seeds and roots necessary to establish an agriculture but also herbs and flowers. Even though their life was rigorous and their resources meager, the urge for decorative surroundings and flowers could not be denied, and little dooryard gardens flourished from the earliest settlements. Needless to say, none of these have survived, but a few have been restored accurately as to plants and layout. They show that the settlers brought with them not only the seeds but their memories of home; this garden, a restoration of a seventeenth century New England garden, is very similar in appearance to the cottage gardens of East Anglia in England.

As conditions became more settled, and the sale of agricultural and other natural products began to create more wealth, estates of some luxury and

ostentation were built. This was especially true in Virginia and other southern states, where the chief crop, tobacco, was in great demand in England. There, by the end of the eighteenth century, elaborate gardens were built by many estate owners; some of these survive in a restored form today. Such an estate was Gunston Hall, near Mount Vernon on the Potomac. The boxwood allée led to the edge of the hill overlooking the river ; the parterre is reminiscent of seventeenth century gardens of England. Gardens of this period were rarely large in extent; neither land nor labor could be spared for non-agricultural purposes. One is reminded of Thomas Jefferson's request to a friend in Bordeaux for a vigneron who could also play the violin. He stated that it was his desire to form a string quartet, but he added, each of the players would also have to have a skill useful either on the plantation or in the house.

Another eighteenth century garden, more ambitious in scale and closer to contemporary English practice is Middleton Place, near Charleston, South Carolina. Started in 1741 by Henry Middleton, it had lakes and grassy terraces comparable to the landscape garden style then dominating English design. This garden remained in the possession of the same family for many generations, and thus is comparable to some of the historic gardens of Europe, where successive generations have enlarged and replanted an original site. This garden still preserves three of the original camelias brought by André Michaux, the great French botanist in 1787, and is also notable for its large plantations of azaleas added in the last fifty years.

English landscape garden style was popularized in the United States by Andrew Jackson Downing, whose books on garden and cottage design had an important impact on design in the suburbs just beginning to expand around urban centers such as Boston, New York and Philadelphia. His work included designs for the great estates which were being built along the Hudson River and which unfortunately have not survived. Today, one single example of Downing's work is still in existence, similar to the layout we find at Lyndhurst, a Gothic revival mansion of the mid-nineteenth century.

Few gardens of the Victorian era have survived; the academic reaction at the end of the nineteenth century against the eclecticism and ostentation of the period caused most private gardens to be destroyed. However, the period between 1850 and the 1890's, that is, the period of the high Victorian garden, was notable for the development of the municipal park movement, and the emergence of landscape architecture as an element of city planning. The leader

of this movement, Frederick Law Olmstead, was the designer of Central Park in New York City. Possibly the only park in the United States to be designated as a National Historic Landmark, Central Park is protected now against encroachments and alterations, and is in the process of restoration under the guidance of a Curator, a unique position.

The end of the nineteenth century is notable in the United States for the appearance of large estates built in emulation of European ones. Centers such as Newport, Rhode Island, the Berkshires in Connecticut and Massachusetts, all summer resorts, or the Carolinas and Florida in the south, winter resorts, were sites for elaborate palaces or châteaux, and gardens designed to emulate the great periods of the European past. Here, for example, is Villa Vizcaya in Miami, Florida, designed as an Italian Renaissance garden, Biltmore, a Vanderbilt estate in North Carolina, has a château, a French style terrace and an English park designed by Frederick Law Olmstead.

Finally, a word should be said of the arboreta and botanical gardens. One of the earliest arboreta in the United States, created by the Massachusetts Horticultural Society in the 1830's was a cemetery park. Many others were built in the nineteenth century, including the Missouri Botanical gardens in St. Louis, dating from the 1850's, the New York Botanical Gardens and Longwood in Pennsylvania, formerly a private estate. The Huntington Botanical Garden in Pasadena, California, is an example of the great range of climate and plant material in the United States.

The few examples I have shown give only the most cursory glimpse of the variety and richness of the gardens of America. Unfortunately, this heritage is poorly protected and constantly endangered by destruction, neglect and ignorant restoration. This, in some ways, is a recent phenomenon. As I have already pointed out, the first historical preservation in the United States, at Mount Vernon, was concerned with gardens and grounds. Efforts to preserve our natural landscape began as early as 1832. In 1872, Congress authorized the Secretary of the Interior to acquire what is now Yellowstone Park, a wilderness area of great beauty with extraordinary geysers and hot springs. To Yellowstone Park have been added many other of our natural wonders, which today are governed by the National Park Service, established in 1916. In this century, its powers of regulation and control have been extended to military parks, historical monuments, and since 1966 the Office of Archaeology and Historic Preservation, a division of the National Park Service, has extended recording and some protection to state and local monuments.

Massachusetts, the site of the third permanent colony in North America, has been in the forefront of historic preservation. In 1891, a group of private citizens obtained a charter from the legislature as a corporation by the name of the Trustees of Public Reservations. The organizers, a group of wealthy and public minded citizens, had become disturbed by the rapid expansion of cities and towns and the consequent destruction of the natural countryside and landscape. They were empowered to acquire, maintain, and open to the public, "beautiful and historic places and tracts of land within the Commonwealth (Massachusetts)." The legal organization, with a private body empowered to accept gifts of land or property, which from the beginning the Trustees required to be endowed, and which were thereafter tax exempt, established an important precedent for the preservation of gardens as well as natural landscapes. Indeed, the Trustees of the Public Reservations served as a model for the establishment of Great Britain's National Trust.

The foresighted actions of the government and private organizations in the nineteenth century established a legal framework from which our historic preservation has developed today. The expansion of the powers of the Park Service is an example. Through its control of national parks, and the historic monuments in it, two important preservation activities have developed. The first of these is the Historic American Building Survey, established in 1934. Gardens as well as buildings have been included in this survey, which for the last forty years has been compiling accurate measured drawings and other documentation of historic buildings and their surroundings. As might be expected, emphasis was placed on eighteenth century monuments during the first years of the survey, but the survey is now extended to all periods of American history.

Examples of the survey show meticulous recording of the plant material as well as the layout and the architectural features.

The second example of the preservation activities of the Park Service is their maintenance and preservation of the gardens at the national historic sites they maintain.

Because of these activities, when the first federal legislation for preservation was drawn up in 1966, the new Office of Archaeology and Historic Preservation was made a division of the Park Service. This act, was, in part, made possible by a Supreme Court decision which rules on the constitutionality of federal, state and even municipal legislation. The Parker-Berman decision as it

is known, significantly expanded the concept of zoning laws, in the statement, and I quote, "The concept of the public welfare is broad and inclusive. The values it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean...

The 1966 act in establishing the Office of Archaeology and Historic Preservation empowered it to enlarge the National Register of Historic Places to include monuments of state and local as well as of national importance. States were required to conduct surveys and to draw up preservation programs which would qualify for federal aid. If any district, site, building or structure, included in the National Register is within or near a proposed Federal or federally assisted undertaking, the effect of the project must be reviewed to demonstrate that no adverse effect on the monument will occur. The criteria for judging an adverse effect include destruction or alteration of all or part of a property, isolation from or alteration of its surrounding environment, or introduction of visual or audible atmospheric elements that are out of character with the property or its setting.

It is encouraging that American preservation legislation is concerned with site and setting as well as the buildings. Nevertheless, this legislation has not been utilized frequently enough for the protection of our historic gardens and landscapes. For example, although the National Register and the List of National Historic Landmarks can include gardens, parks, etc., very few have been listed. In a recent book on the great gardens of America, eighteen were old enough to be listed but only six of them have been placed on the Register.

Another difficulty lies in the wording of much of our state and municipal law. In almost every case protection is provided only for that part of the site visible by the public from a public street. This has led to preservation districts where meticulous restoration of buildings has taken place, and where the plantings on the street are at least harmonious with the period, but where the part of the garden invisible to the public is either abandoned or entirely inappropriately designed and planted. All too often both money and interest in a preservation project runs out at the front door.

Thus, most successful preservation and restoration has remained in the private sector, all too frequently in the hands of amateurs who do not have the scientific methods necessary for accurate restoration. Nevertheless some projects should be described as exemplifying the best in preservation and

restoration that is happening in this country.

The most ambitious restoration project is in Williamsburg in Virginia. This was an important centre for the origins of the American Revolution and in the eighteenth century the capital of one of the wealthiest colonies. In 1927, John D. Rockefeller became interested in the town and provided funds to begin a restoration to the period of the 1770's . Nineteenth century houses were torn down, eighteenth century houses moved in, the remaining eighteenth century houses restored, and two major edifices, the Governor's Palace and the State House were rebuilt. Every effort has been expended to make the settings as well as the buildings appear appropriate. Williamsburg started as a private foundation with an endowment but now is paying for itself by charges to the public.

Another example of restoration and preservation that is not entirely governmental is provided by the American National Trust for Historic Preservation. Although chartered by the government it is a private institution ; it acquires historic properties such as Woodlawn, which is maintained as a monument open to the public. In an interesting example of cooperation, the Garden Clubs of Virginia, an association of amateur gardeners and horticulturists , was responsible for the restoration of the gardens to their eighteenth century style.

Finally, the most usual form of garden preservation today is that in which a property, formerly a private estate, is given to an organization or municipality with an endowment to provide for maintenance; the estate becomes a public park. Among the numerous examples I cannot resist naming Dumbarton Oaks in Washington D.C., the institution for which I work. Started in the 1920's, the estate had forty acres of elaborate terraced gardens and woodlands. It was donated to Harvard University as a research institution in Byzantine studies, pre-Columbian art and most recently the history of landscape architecture. One part of the grounds was given outright to the city of Washington as a municipal park. The gardens, maintained by a separate endowment, are open to the public and visited annually by more than 20.000 visitors.

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NOTE ON THE HISTORIC GARDENS OF THE USSR

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A. On the significance of Historic Gardens and their Originality

1. Of those gardens which may be considered "secondary" from the point of view of garden art, in that they are partially copied from greater works, or lacking in really well-executed details, some are nevertheless very valuable from the historical point of view (for example, as the unique setting of some great man's life), or else for the important role they play as part of their surroundings. Among the gardens mentioned on the Fontainebleau list, Spasskoe Lutovinova (31) or Serednikovo (32) are in this category. Of lesser gardens Malinniki, Bernovo (between Moscow and Leningrad, often visited by Pushkin), Olgovo near Moscow, Ryabovo near Leningrad, and many others, may be cited as examples. Perhaps, in addition to originality of design and state of preservation, historical associations and spatial significance should be admitted as criteria for evaluation.

2. There is another important point connected with such "secondary" gardens which arises out of the disappearance of gardens under the pressure of modern circumstances. With the loss of certain gardens in the highest class - some of which have already perished, while others are beyond saving - secondary examples belonging to the same styles and periods acquire a new significance and the right to renewed attention. They become worth preserving and restoring as unique examples of types which are disappearing. To single out these gardens is no easy task, since gardens are still unclassified and many have not even been recently inspected by specialists. But if they are not to follow their "betters" and be lost in their turn, the problem is an urgent one.

"Secondary" parks and gardens are excellent places for tourism and vacationing. Recent research has shown that in the Leningrad region, for instance, there are 516 parks of the 16th and 19th centuries of which more than a hundred are valuable enough to be restored to their original condition, while the rest should be preserved and made use of. Within this galaxy the famous great parks of Leningrad assume a new importance.

The same kind of research is going on in other regions of the USSR and the list of historic gardens is currently being reviewed and enlarged on the basis of the resultant findings.

4. A very important point is the possibility of raising the aesthetic standards of modern landscape-design through knowledge of the ways in which the magnificent gardens of old were made. This special aspect of the historic garden should be greatly stressed.

3. On the Reasons for their Disappearance

1. The main enemy of the historic garden is considered to be urbanization, with the resultant gross over-use.

The problem of over-use gives rise to a great deal of conflict in day-to-day city planning. Though a particular number of visitors may be considered too large for a given site, so long as that site continues to exist and no building on it is contemplated, the problem of conserving the garden laid out over it does not become obvious.

This is the case with many of Moscow's historic parks, now surrounded by large recently-built blocks of flats, with no large green space designed for mass recreation in the vicinity. As an example, let us take the Vorontsovsky Park in Moscow; whereas analysis shows that it can survive under the impact of 7,600 visitors, the number now expected from the new housing developments in the neighbourhood is as high as 21,000.

Though all these historic parks are protected by law, in reality they are deteriorating from over-use, simply because of the popular need for open spaces. This means that, while they will continue to exist as open spaces, they will - perhaps inevitably - lose their historic character.

The main problem, therefore, is how to apply the excellent conservation

laws existing in the USSR today to day-to-day planning.

2. Of those gardens not adversely affected by mass use, there are many which are deteriorating from neglect and failing to attract public attention because they are virtually unknown. An example is the house and grounds of Gliadichi in the Bryansk region, laid out in grand 18th-century style. The tourist routes miss it, and the neighbouring villages can find no use for a large establishment of this sort, so that it is slowly disappearing. An important objective is thus to find a contemporary use for many of these gardens.

3. The best way of using a house and garden is still considered to be to have them house a school or sanatorium, with proper provision for visitors. Recent surveys show, however, that some of the gardens used in this way suffer from permanent lack of upkeep, stemming from inadequacy of financial support. Many such examples have been found in the Moscow region alone, where surveys have been recently conducted.

4. An important question which should, perhaps, be yet further elucidated, is : just what is a "conserved" garden ? Even among specialists concerned with the restoration of architecture - not to mention practical architects and the large body of people on whom the fate of a garden depends - the prevailing view is that as long as the garden site and its boundaries exist the garden is more or less safe. All sorts of deterioration, from cracking sculpture to dying plants, may thus pass unnoticed.

This means that wider distribution of information on historic gardens is urgently necessary.

C. On ways and Means

The Moscow Institute of Architecture is experimenting with graduate courses in historic garden restoration. The most important objective is to work out a method of teaching the students the specific nature of landscape restoration and bringing home to them those elements which make this a most difficult and complex field of practical planning and design.

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CONSERVATION AND PROTECTION OF HISTORIC GARDENS IN CZECHOSLOVAKIA

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Historic gardens and grounds are protected in the Czech Republic by Law n°22 of 1958 on monuments of cultural interest, and in the Slovak Republic by Law n°7 of the same year. These laws afford them protection as forming a part of the historical monument - castle, mansion, palace, wealthy middle-class residence, monastery or other building - round which they are laid out. Independent botanical gardens, and parks not containing any ancient building, are protected under Law n°40 of 1956 on the protection of nature.

Cultural property protected by law is entered in an index of immovable monuments of cultural interest. The amount of protection afforded to any given ancient monument or group of monuments will vary according to the cultural interest attaching to it. Historic gardens and grounds are considered to be an important part of our cultural heritage. In Bohemia and Moravia there are about a hundred gardens of very great cultural value; the majority of them date from the 18th and 19th centuries and in style are either baroque, rococo, Empire, romantic or English-landscape. However, those preserved also include medieval cloister gardens, Renaissance gardens with parts of their sculptural and architectural decoration, a few Classical gardens, and also some more recent ones, laid out on the sites of ancient ones and either imitating a period style or else adopting an "independence" style (around 1900), or a modern one.

In the 19th century a great many baroque gardens were completely or partly converted into informal landscape gardens, though a considerable part of their baroque composition was retained, as well as many of their pleasure pavilions and original sculptures. In many cases the dendrological value of these parks in their newer guise is very considerable, and their trees

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should be carefully preserved. Several of them suffered for decades from ageing vegetation, lack of upkeep, and air, water and soil pollution. There were even a few - fairly rare - cases where grounds were actually destroyed, either completely or in part, mostly under the pressure of economic interests.

A long-term programme for the restoration of historical monuments has now been drawn up which takes account of the historical value and state of conservation of each monument and the possibilities of finding a public use for it. Monuments of great value - and, consequently, important historic gardens - enjoy a relatively greater measure of protection and upkeep. We thus constantly have in mind the role of gardens as a factor in an improved living environment and their ^{exploitation} exploitation in response to public requirements along with the ancient monuments themselves. Gardens form an indivisible whole along with the buildings to which they belong, a specific cultural environment of which decorative elements such as garden pavilions and sculptures also form a part. When assessing the interest attaching to historic gardens and grounds, we allow for this aspect as a part of a larger whole, without, meanwhile, overlooking the botanical aspect. Gardens, in our part of the world, are primarily composed of vegetation - of planting which varies greatly from case to case.

Our criteria for determining the importance of a historic garden are as follows :

A. Historical value :

1. Original layout
2. Present-day layout
3. Buildings
4. Decorative works of art.

B. Dendrological value.

C. State of preservation of the original design.

D. Present state.

E. Importance in the present-day environment.

F. Historical, cultural and social importance.

Gardens and grounds placed in the first category (i.e. the highest) are of overriding importance for the study of the development of garden design in our country; they form a part of the surroundings of historical monuments of

national and even European value. They are looked after with the greatest of care so that they remain in the best possible state of preservation and are being, in some cases, completely renovated or restored.

Gardens and grounds in the second category are of national and regional importance; they are regularly kept up so as correctly to fulfil the public function assigned them.

Those in the third category are of regional importance. They represent an extremely valuable contribution to the ~~improvement~~ improvement of the living environment, not merely from the cultural and social points of view but also on the biological level. For purposes of renovating them or adapting them for practical use, more radical alterations are permitted.

Most of the historic gardens and grounds in the Czech Republic are State property. Their conservation and upkeep are provided for by a manager or by the institution which uses them. A private owner whose garden is listed as a historical monument may obtain financial assistance from the State if he wishes to renovate it. We encounter fairly frequent difficulties in connection with the restoration and upkeep of gardens, owing to our limited output capacities and our lack of man-power.

A few brief remarks in conclusion on the organizational aspect of the preservation of monuments in the Czech Republic (C.S.R.). The supreme body in charge of the State is the government of the Czech Republic. The responsible bodies composing this are the ministries, while the executive bodies are the national committees. Attached to the Ministry of Culture, as an advisory body, is the Central Preservation Commission. Executive power is the business of the regional, district or local committee, according to circumstances. The technical aspect of conservation in each region is the business of the State Regional Centre for the Preservation of Monuments and the Protection of Nature, which is subordinate, as far as methods are concerned, to the State Institute bearing the same title. Both in policy and in practice, the administration in charge of the preservation of monuments apply the principles governing the "conception of the development of State preservation" approved by the government of the Czech Republic in January 1975.

SPEECH BY Mr. Van Doorn, Minister of Culture, Recreation and Social Works

European Architectural Heritage Year, 1975, has in many ways caused people to go more deeply into the question as to what exactly their architectural heritage consists of. A directly related question is, how to find a fitting place for this heritage in modern society. It would actually be better if we recognised the priority that ancient monuments deserve and formulated this question differently, asking ourselves how, and to what extent, present-day needs can be met in and around this valuable old buildings.

We should bear in mind that it is not only monuments of a purely architectural kind that have a right to our attention in this Architectural Heritage Year. The monuments which are being studied and discussed in Zeist this week-historic gardens - share this right. These strange and fascinating creations of both nature and architecture are products, as it were, of marriage between nature and culture, in which each gives the other an added dimension. Sad to say, they have not been very successful in rousing public interest, which has been centred mainly on our architectural heritage, urban and otherwise.

Historic gardens have usually been regarded, erroneously, as a problem which is only marginally connected with monument conservation.

The gardens, which are situated next to or around buildings, form a whole with the building. Their architecture has a dual purpose - it is directed both at the building and at the surrounding countryside. The outdoor area, "les salles du dehors", "les salles de verdure", extend and supplement the indoor area; they belong together, enrich each other, and are two parts of a single indivisible monument.

The garden component, however, has been studied and appreciated far less than the buildings have. The study of historic gardens requires a knowledge of trees, flowers, ^{bloemen} herbs, and ^{struiken} shrubs, and also of the history of landscape gardening. Without the help of this discipline, so different from their own, art historians and architectural historians will never be able to explore gardens properly.

This is why I consider it very important that a colloquim is being held in this country this year which is devoted exclusively to the study of Dutch gardens. I hope it will achieve three things

Firstly it should show clearly how extensive the field of monument conservation is - more extensive than many realise. After all, the concept "monument" and "protected monument" have become much broader over the last hundred years, and now include gardens and parks. The growing awareness people have of the value and public importance of monuments should therefore be extended to include historic gardens.

At the same time this colloquium should encourage the study of historic gardens. Without the necessary knowledge we cannot respond properly to the call to protect, conserve, restore, and maintain our historic gardens. All too long monument conservationists have been prevented from doing anything about gardens by this lack of knowledge. Now time is running out. I trust that the colloquium will awake interest in our gardens and provide a strong stimulus for deeper study.

This brings me to my third goal, which is to rouse interest in historic parks and gardens especially among those who are responsible for maintaining them. For this purpose the knowledge and insight obtained should, insofar as this is feasible, be popularised at an early stage. This will also allow visitors to enjoy the beauty of parks and gardens more fully.

This will result in greater understanding of and respect for these monumental gardens, and will make it easier to answer the second question how the historic gardens can be made to fit in with present-day needs, because people will agree more readily on priorities.

I trust that this colloquium will do much, nationally and internationally, to promote expert conservation, restoration, and maintenance of this national heritage, which has been partly hidden from the public eye and is waiting, like a sleeping beauty in the woods, to be recalled to life.

Monsieur Pechère remercie Monsieur Van Doorn d'avoir bien voulu ouvrir le 3ème Colloque, après avoir permis qu'il se tienne. Il est heureux de voir combien Monsieur Van Doorn est attentif aux problèmes de la conservation et de la protection des jardins historiques.

From the Historic to the Total Garden,
Some considerations based on the Cultural and related
Influences of Botanic and other Gardens of the Past.

by Frans VERDOORN

Having been engaged, for several decennia, in sundry advisory and related activities, frequently along historical lines, in connection with botanic and other gardens, horticultural publications and congresses, etc., I drew up many suggestions and developed a variety of ideas as to the theory, practice, possibilities and, particularly also, as to the implications of the study and/or reconstruction of gardens of the past.

I presented some of these in addresses delivered on the grounds of the Los Angeles State & County Arboretum (1948/1949) and in 1953 as a contribution to an International Symposium on the Scientific Organization of Botanic Gardens which was held by the I.U.B.S., with UNESCO assistance, in Paris. Later, I dealt with these in contributions to 'Chronica Horticulturae' and other papers, such as De Plant in de Biohistorie (1971)

It would be easy to give again a talk along these lines, but I feel that this occasion, this third ICOMOS - IFLA colloquium, calls for some opening remarks which will touch upon the broad issues involved and implicated by the subject matter of gardens of the past and their cultural and related influences.

I will do this also as two of my associates, Mrs. Oldenburger-Ebbers and Mr. Heniger, in a most critical way, prepared for you an annotated list of ornamental plants to assist with the proper reconstruction and maintenance of 16th and 17th century gardens, particularly in N.W. Europe. To their tables of plants, they added illuminating introductory remarks, as well as some appropriate illustrations. In addition to their booklet on Ornamental Plants in 16th and 17th Century Gardens, an exhibit of some of the relevant literature, still enhanced by an annotated catalogue, has also been prepared. All this material, prepared according to the demands of historical criticism, will, I am certain, lead to further discussion amongst you.

To illuminate now the relevant backgrounds over a somewhat broad spectrum, as you may well expect from a biohistorian, i.e., a student of the historical interrelations between Man and Living Nature in its various manifestations (at the same time being always conscious that the affair of man in the past, present and future are undivisible), I propose:

- 1) to start by some general remarks on gardens of the past, often in relation with those of today, and frequently with some special reference to botanic gardens,
- 2) to dwell thereafter with you on the rather special nature of the scientia amabilis hortensis, with reference both to the present and the past of that discipline which is both the nucleus of, and the key to the study and reconstruction of gardens of the past,
- 3) & to conclude, as far as time may permit, by two biographical case histories in order to stress both the cultural influences which gardens may exercise and the concept of the 'Total Garden' (a garden type in which, on the one hand, the past, present and future are represented and in which, on the other hand, scientific and humanistic endeavours meet and join forces).

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In considering historic gardens and parks, we meet primarily with three types:

- 1) Gardens as an integral part of an estate, i.e., gardens established in conjunction with, e.g., a castle, a monastery, a rural mansion, a town house, or a farm of some pretension.
- 2) Gardens as an essential element of a scientific establishment, such as medicinal, botanical, school gardens, etc.
- 3) Gardens which are, or were, part of commercial establishments, i.e., nursery gardens.

There are, of course, other types of gardens and also gardens which, in splendid isolation, were laid out for their own sake rather than in connection with other endeavours. The majority of historic gardens, however, belong to one of the three categories which I just mentioned. This does not mean that we can draw up iron rules, either as to the lay-out or as to the assortment of plants grown in order to differentiate these three historic garden types from each other.

There have been, through the ages, numerous estate gardens and also quite a few nurseries with a more sizeable assortment of species and cultivars than found in nearby educational gardens. Developments in garden lay-out, in landscape architecture, on the other hand, found their way in many botanic gardens and, to a lesser extent, in a number of nurseries.

I am raising these points in order to bring forward that, though the reconstruction and maintenance of each of these garden types has its special problems, there are so many common problems and aspects involved that it will frequently be a one-sided approach if we restrict our considerations to only one of the three main types which I just listed.

These three types of gardens have other aspects in common of which I may mention the two which seem most important to me:

- 1) Amongst men-made establishments in the natural history field, gardens do, or at least can, have a considerable emotional impact and influence, an influence frequently enhanced by the flora dendrologica when present. Those of you, who are primarily landscape architects, will have undergone an influence, difficult to bring under words, from visiting or working in the classic parks of the Continent, the British Isles, and perhaps also in the Far East or in other parts of the world. Speaking as a botanist, who often entered the domain of horticulture, I can only say that a good part of my career was shaped by working in such gardens as the Hortus Bogoriensis (the former's Lands Plantentuin in Java), the Gardens at Kew, Harvard's Arnold Arboretum, the Los Angeles State and County Arboretum (of which I was organizing director) and, later, of the Fairchild Tropical Garden in Florida and Linnean Garden at Uppsala. Needless to say, many other garden types, from the plantation gardens in Georgia, to those at Williamsburg, and such continental gardens as those established in, or reflecting, the Romantic period, were also of much stimulation.
- 2) Then, a properly developed garden, an establishment of the 'Total Garden' type, regardless whether it is an estate garden, a botanical garden or an arboretum, remains one of the few places on earth where those engaged in the study and cultivation of both humanistic and scientific values may still meet, and should be made to meet. CLIFFORD HARRISON expressed it with better words than I can find:

More than a pleasance is a garden-plot;
No playground merely, nor sequestered grove;
Gardens have been, since man's primeval lot,
The scene of thoughts on which the ages move .

It was with these lines that I concluded an address before the American Association of Park Executives in Boston, as long ago as October 1948.

In this talk I also pointed out that Botanical Gardens, i.e., gardens in which plants are grown for educational or experimental, rather than for ornamental or utilitarian purposes, are almost as old as human culture. With astronomical observation posts, they belong to the oldest scientific institutions. They often pioneered in the introduction of economic and ornamental plants and played thereby a leading role in the cultural history of mankind. For centuries they were the centres of botanical and much other biological research, thereby playing an important role in the history of the life and other biomedical sciences.

The study of the gardens of previous generations is not only interesting and stimulating, but useful for many purposes. In the first place, we cannot understand today's botanical gardens and arboreta well, just as we cannot really understand any subject of pure or applied biology, unless we make ourselves familiar with its development through the ages. To appreciate a modern botanical garden and to evaluate its future possibilities, we have to know about its history, about the life and work of those who were concerned with it before our time, about the history and use of the land before the establishment of the garden in question and, last not least, about the origin and history of the plants grown in the garden.

All this is not as easy as it sounds, we do not want to collect some odds and ends, some amusing anecdotes; we are scientists, not antiquarians, and we want to obtain an accurate and somewhat continuous picture of the development of the gardens of the world generally, and perhaps of our own garden in particular. Now, the history of any scientific subject, in our case the history of gardens, is not just a combination of history, on the one hand, and of science, in this case botany and horticulture, on the other hand. Instead of dealing by direct observation with plants (living or dead) or plant formations (natural or man-made), as we botanists and horticulturists are accustomed to do, we have to deal with what the historian calls documents: books and other printed accounts, manuscripts, prints, paintings, drawings, maps, letters, diaries, note books and other papers. These tell us, indirectly, about the gardens, their plants, and their workers of the past. All this means that we have to follow the approach of the humanist rather than that of the life scientist. This was not so difficult fifty years ago, when most of those concerned with a garden had been to a Latin School and had been trained in the humanities. Today, we often have to make ourselves first acquainted with the method of the history of science and with "historical criticism", which calls for other methods and techniques than those followed in biological and horticultural research. The booklet which Mrs. OLDEN-BURGER & Mr. HENIGER prepared for you, may well be singled out as having fully met with these demands.

Now, you will say this is all very nice and I understand that I can get a somewhat broader view of whichever gardens may interest me, by studying their history. Is it, however, really worth-while to dig up all these old data? Will my effort be of any real use? The answer is yes, emphatically yes!

In the first place, those in charge of gardens, of whatever type, will find it useful to emphasize their history, to preserve their historical landmarks, and to show the visitors something of the history and development of botany and horticulture generally. Experience has also shown that these activities, often in cooperation with a local historical society, may attract new collaborators, as well as foundation members and funds which would not have been available otherwise. It will also prove stimulating to many of the academic as well as the non-academic members of the staff of any botanic or other garden.

Moreover, the majority of today's gardens look quite different from those of previous generations. Every large garden, I believe, will find it worth while to include amongst its special gardens one or more reconstructions of gardens as they existed, and perhaps still exist, elsewhere (for the reconstruction of typical foreign gardens, assistance can often be obtained from regional or national societies or citizens of foreign origin). The cost of the reconstruction and upkeep of historical gardens is high, often one will need extra funds and will have to interest sources which did not contribute hitherto to one's garden budget to make them possible.

More important still, gardens, particularly botanic gardens, with their long history, often tend to become reliquiae of former centuries rather than living, contemporary institutions. Through the lack of vision of those in charge or through their preoccupation with their personal projects, they often become, particularly on the Continent, stationary depositories of statuesque trees, half empty beds continued from a former generation, rusty, uninspiring greenhouses, etc. Yet, botanical gardens are living institutions, we must see them as links in a chain. How shall we know, unless we are geniuses (and geniuses split atoms, they do not work in or near botanical gardens), how the next links have to be moulded unless we are familiar with previous links?

Let us now go back to our gardens and plants and let us briefly consider the development of gardens. I do not say the development of botanical gardens, for it is often both difficult and senseless to distinguish botanical gardens from other gardens. In the 17th century, the professores considered their horti medici mainly as scientific gardens. Here, the professor of botany, at the same time a professor of medicine, anatomy or pharmacy, and by training a physician, showed his students the plants listed in their Pharmacopoeia. Other plants were

sometimes grown, mostly interesting plants from abroad such as unusual bulbous plants but more rarely wild plants from nearby woods and meadows.

At that same time, the more substantial merchants established beautiful gardens where the seeds and bulbs brought home by their captains from faraway countries were given a trial, gardens which played an important role in plant introduction and which (though there are noteworthy exceptions of the Padua and Leyden hortus academicus type), fascinate us today often more than the giardini dei semplici.

These considerations bring us to the following conclusions, i.e., as to the desirability of reconstructing and/or maintaining gardens of the past:

- 1) It is quite worth while to study the history of our own botanical as well as other gardens of the past,
- 2) this study will reward us with new and useful ideas about historic landmarks which may be emphasized and reconstructions which will profit all concerned and,
- 3) above all, it will give us new ideas about the future of our own garden, in the case of botanical gardens, e.g., about new relations between the living plants, the herbarium, the books, research, education and extension work (also along humanistic lines).

A number of interesting questions as to the why and wherefore, as well as the further possibilities of the reconstruction and maintenance of historic gardens have now been raised and touched upon.

It will be obvious that foremost amongst the scientific bases of historical garden reconstruction are:

- a) the history of garden design, garden types & landscape architecture in general,
- b) the history and proper identification of the plants (species & cultivars) grown in former periods,
- c) the history of plant cultivation (incl. of the tools once used),
- d) the history of garden structures (incl. of their purpose in the past).

As all this belongs to the domain of horticulture (I should emphasize that I am using the term in the broad Anglo-Saxon sense of the word) and also as contemporary horticultural science is involved in the reconstruction and maintenance of historic gardens, I should now like to pursue the scope of horticulture (with some special reference to those aspects of concern to us, but yet over a rather broad spectrum) with you.

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Of horticulture, we may well say with JOHN GERARDE that it is the most delightful of all the pure and applied life sciences. As he wrote in his Herball (1597):

"Furthermore, the necessary use of those fruits of the earth doth plainly appeare by the great charge and care of almost all men in planting & maintaining of gardens, not as ornaments onely, but as a necessary provision also to their houses. And here beside the fruit, to speak againe in a word of delight, gardens, especially such as your Honor hath, furnished with many rare Simples, do singularly delight, when in them a man doth behold a flourishing shew of Summer beauties in the midst of Winters force, and a goodly spring of flours, when abroad a leafe is not to be seene."

In some previous writings, I referred to medicine and medical history as having a "uniqueness in science and culture, as well as in their history", and to contemporary horticulture as well as horticultural history, as being the primae deliciae of all of the pure and applied life sciences, as well as their humanistic backgrounds.

The horticulturist sensu latiori (though this may not be exactly following the norms according to which the average continental horticulturist formulates his activities) is, I always feel, confronted with a broader spectrum of "main and mixed colours" of our scientia amabilis than workers in any of the other pure and applied plant sciences.

In utilizing the flora hortensis, his encounters with ornamentals and other plants grown commercially, including vegetables and herbs, as well as shrubs and trees, may bring him to studies ranging from various land-man relationships and their history to the general and special history of domesticated plants (recently greatly furthered by such diverse approaches as those of cytotaxonomy and bio-archaeology), and medicinal plants with their special problems and own historiography. Brief mention should also be made here of the possibilities of breeding currently extinct cultivars.

A great variety of products of vegetable origin - as far as belonging within the compass of horticulture - may well fascinate him by the blend of technological, economic, and frequently also cultural historical aspects involved, such as, e.g., food products (incl. those to be derived from forgotten or no longer conventional sources), vegetable fats and oils, vegetable dyes (no longer of much importance in the Western World and N. America, but of a tremendous biohistorical importance by touching upon a vast variety of subjects!), spices and other aromatica,

textile plants and their fibres, certain plants (other than for wood pulp) still used in paper making, and - last not least - of wood with its many-sided facets and intriguing history, including the influence of wood on world affairs, today and in the past.

Horticultural engineering - in the past, today and in the future - is equally of much concern to him, from greenhouses to the tools of his trade, and the gradual mechanization and future industrialization of much plant production.

In his scientific pursuits, i.e., with reference to organized knowledge in connection with his profession, the horticulturist may become involved in the pure and applied plant sciences, from taxonomy to phytopathology, from olericulture to dendrology, etc. Via problems of pest control he will come to economic entomology or the larger issues involved as studied by applied oedological zoology.

General and special garden science, in its manifold aspects, including, on the one hand, the principles and historical backgrounds of landscape architecture (of which further mention will still be made later) and, on the other hand, the cultural and social impact which gardens - from national arboretums to local rosariums and from schoolgardens to parks - may exercise, will often be of much concern to him.

Last not least, he is being involved increasingly in certain aspects of interhuman relationships (the social and economic aspects of horticulture and its subject matter) from environmental biology towards "Freedom from Want" (including the consequences of the contemporary "Green Revolution"), from governmental regulations and legislation towards the management of horticultural surpluses and technical assistance in this field. Special problems are still being offered, in this connection, by counseling and guiding those desiring to devote some of their ever-increasing leisure time to various types of home gardening.

Horticulture, in addition, and this is of special importance from our point of view, involves a variety of other relations between gardening sensu latiori and mankind. Even if he is not inclined to pursue historical and other humanistic values in connection with the subject matter of his profession, for their own sake, the horticulturist frequently becomes involved in some of these. He may turn to linguistic aspects (the meaning, origin, etc. of both vernacular and Latin plant names - which often will throw light on the history of the relevant plant taxa - and the jargon of horticulture, both scientific, vernacular, and in various dialects).

He may also turn to the literary aspects (such as that genre of Georgic poetry known as the Netherlands "Hofdichten" and the "horticultural essays", two occasionally overlapping literary genres, from VIRGIL to KARR, and from JOHN EVELYN to GEORGE SITWELL).

Then, he may become fascinated by the art historical aspects (e.g., landscape painting or Netherlands still-life painting as a source for our knowledge of early varieties, or Eastern and Western floral arrangement and related art.)

Phyto-folklore (in which ancient horticultural practices and lore survive, often throwing light on present-day customs which otherwise we would not properly understand) may lead him to phytosymbolism (in which garden plants of all kinds, including trees, and horticultural practices played a considerable rôle since antiquity, a rôle which often will elucidate such important early aspects of interest to us as the garden flora in magic, in astrology, in the doctrine of the four signatures, etc.). Of special interest in this connection are the emblem books (cf., e.g., the various horticultural practices utilized symbolically in several of JACOB CATS' works, and the trees utilized in the first of all emblemata, those of ALCIATUS, to give only a few examples).

The historiography of landscape architecture, it may still be pointed out in this connection, is currently undergoing a minor revolution as emblematic and related considerations appear to have played a much larger rôle than formerly understood. Interesting a problem as this may be, the horticulturist does not have to pursue it to find an interest, an absorbing interest, in gardens of the past and the broad spectrum of implications they offer us (as discussed throughout this paper).

Even such a seemingly minor subject as the history of commercial nurseries (and their catalogues, etc.) soon turns out to have a variety of fascinating aspects.

Essential are often also excursions in the history of the life sciences, from the history of plant physiology (e.g., with reference to "agricultural chemistry", the forcing of plants, etc.) to biography of plant scientists, and from various types of bibliography to horticultural and related travel literature (a most important source for us, from HERODOTUS to FARRER and FAIRCHILD, incl. such governmental reports as those from FRANK MEYER to F.G. MEYER).

Much more could be said to prove my thesis that horticulture - "où les fleurs et les fruits font la musique" and where gardens are one of the few types of contemporary institutions where the arts and sciences still may meet - is the most delightful of all life and related sciences (followed probably by ornithology).

I should now like to conclude, in a somewhat different vein, by stressing the cultural influence which a garden, ornamental or academic, historic or contemporary, may have by two brief biographical excursions.

From several appropriate examples I selected the DE CANDOLLE family Geneva and America's CHARLES SPRAGUE SARGENT. LINNAEUS, as I pointed out in my Cui bono? (1970) would also be an intriguing case history. I wish also that I could say something about EDOUARD MORREN, the inspired founder of the International Horticultural Congresses and long-time editor of La Belgique Horticole.

Augustin Pyramus de CANDOLLE (1778-1841), the founder and first director of the Geneva Botanic Garden, his son and second director of the Geneva Botanic Garden, Alphonse L. P. de CANDOLLE (1806-1893), the latter's son, A. Casimir P. de CANDOLLE (1836-1918), and Casimir's son, R.E. Augustin de CANDOLLE (1868-1920), again we remember mainly as the founders of the famous Candolle Herbarium and Library (for four generations located at their family residence at the Cour St. Pierre) and their manifold taxonomic publications, such as their Prodromus (1824-1873) and Monographiae (1878-1893). The four Candolles, particularly A. P. and Alphonse de Candolle, however, were not only systemic and general botanists, but also botanical humanists of unique standing, greatly influenced by the Geneva Botanic and various other gardens.

A. P. de CANDOLLE, one of the last of the universal plant scientists, in addition to an almost unbelievable amount of major systematic publications, enriched us with writings on such diversified subjects as agricultural and botanical geography, botanical and agricultural travel observations in France, the methodology of general and systematic botany, the organization and administration of botanic gardens, instructions for botanical collector-travellers and historical accounts of botanic gardens; in general, and of those of Genève and Montpellier in particular. He also wrote several text books on plant morphology, on plant physiology, on the art of plant description, on systematic botany, etc., much biography (not only botanical), a variety of surveys of "recent developments" and many critical, extensive book reviews. Regardless whether dealing with the Cactaceae and other succulents, or with medicinal plants, with the genus Brassica, with local dendrology, pomology and viticulture, with rare plants from the Geneva gardens, etc., his publications are apt to include a great variety of biohistorical

data. His Memoires et Souvenirs were published by his son Alphonse (1862) while his grandson, Casimir, arranged for the publication of his account of the Gaspard Bauhin Herbarium (1904). Of his hitherto unpublished reliquiae we may mention: Lettres sur la Hollande (1799), Hospices ... de Paris (1801), Geographie Morale (1812-1836), Futur de la Vallee du Leman (1814), Flore de Troubadours (with Raynouard), much material for a variety of botanical dictionaries (p.p. with Moritzi), and a "Recueil de Vers".

ALPHONSE de CANDOLLE, in addition to his taxonomic interests, was much concerned with the biohistorically so intriguing problems of plants in the process of time and wrote extensively, often in a pioneering manner, on plant geography and distribution (1855 : Geographie Botanique Raisonnee, etc.), palaeobotany, the rules of botanical nomenclature, the technique and philosophy of taxonomic botany (1880: La Phytographie, etc.), heredity and Darwinism, the origin and geography of cultivated plants (1883: Origine des Plantes Cultives, etc., etc.), botanical and economic statistics, language and science, the genealogy of the Candolle family, etc. We also owe him many papers on local or national civic affairs (in which biopolitical elements are not failing), review essays (in which additional data from his rich library were often incorporated), biographical accounts, and a classic history of science (1873: Histoire des Sciences et des Savants depuis deux Siècles ...)

Of special interest from our point of view is America's Charles Sprague SARGENT, the founder and first director of the Arnold Arboretum, America's greatest garden. He was hardly, as some may think, a one-sided dendrologist or Crataegus hunter, but one of the great biohistorical pioneers, a truly "dendrological Osler". This may come as an unexpected statement to those familiar with medical humanism. Yet, just as Osler, by his humanistic spirit, as expressed in his bibliophile pursuits, started a "medico-humanistic" movement; Sargent, in exactly the same way, initiated a botanico-humanistic movement. He only did not have the Oslerian genius of expressing himself and, being introvert rather than extrovert, he did not inspire botanical humanists, scattered throughout the U.S.A. and abroad, to continue in his steps. Of the few exceptions, we may mention the late Dr. STUART GAGER, of the Brooklyn Botanic Garden, well known to some of you for his historical garden reconstruction, of limited size and scope, in the framework of a larger garden.

Osler, the extrovert pioneer medical biohistorian, had the support of many colleagues, pupils, benefactors, and others too numerous to mention. Sargent, the introvert pioneer botanical biohistorian, perhaps relied too much, exclusively, on the support of such benefactors as Charles James Sprague, Francis Skinner (of Boston) his son Francis Skinner (of Dedham), Mrs. Sarah Choate Sears, etc.

While Osler left us the Bibliotheca Osleriana, Sargent left not lesser a monuments, the Arnold Arboretum of Harvard University, the future possibilities of which, also if seen as an experiment in applied biohistory, have been enhanced by its recent reorganization and partial transfer to Cambridge, Mass.

Much of this may sound rather academic to many of you, and some of you may feel that all this would sound much more appropriate if said at some ceremony on the grounds of, e.g., the Henry E. Huntington Library and Art Gallery (a humanistic research establishment in California surrounded by a mainly ornamental garden). Yet, this is not the case, for the modern arboretum or botanic garden, if properly balanced as a 'Total Garden', as pointed out before, remains one of the very few types of natural science research institutions where certain natural sciences, the fine arts, history and other humanities still may meet and can well be made to meet more intensively. I strongly feel that a proper understanding of our biohistorical ideology, briefly outlined throughout this address, can make this something exciting, something profitable (also from the point of view of the arboretum in community life), and something unique in the world of science. With the necessarily, ever-increasing specialism in science, there exist today hardly any other modern scientific institutions which can be truly developed as "experiments in applied biohistory"!

These ideas are hardly are hardly novel. Though many directors of contemporary botanic gardens and arboretums see their task mainly in purely natural science terms (with some emphasis on their rôle in community life thrown in for good measure - a good manager has to be public relations conscious), the great directors of botanic gardens of the past have never seen their task exclusively in terms of botany, horticulture, dendrology, etc.

The broad spectrum of their activities also makes it clear:

- 1) that garden history is primarily a sector of a variety of humanistic endeavours which I briefly summarized while dealing with the 'scientia amabilis hortensis'.
- 2) that this variety of humanistic endeavours brings us to a comprehensive garden concept, a 'Total Garden' concept in which, on a small or large scale, elements from the past, present and future are represented.
- 3) that, though for historical garden reconstruction and maintenance, garden history is an essential tool, it is a tool to be considered and utilized properly within the complex of humanistic endeavours referred to above.
- 4) that, while for scholarly or other reasons we can differentiate between a great many garden types, both of the past and present (as LINNAEUS

attempted, e.g., in his Bibliotheca Botanica, and as Mr. HENIGER will endeavour to do in his forthcoming thesis), it is the essence of the 'Total Garden' ideology that the boundaries between sundry garden types are primarily not very relevant as these boundaries will be passed, bypassed and transcended continuously (secondarily, on the other hand, the scholarly analysis of specific garden types will obviously be of considerable importance in conducting an establishment of the 'Total Garden' type).

It seems fitting now to terminate this biographical case history with some excerpts from Sargent's foreword to the first volume of the Arnold Arboretum Library Catalogue. The words and thoughts have a New England simplicity, they lack Oslerian force and persuasion; yet, the whole philosophy of what I once called "the Modern Arboretum", i.e., a "Total Garden", a garden seen as a centre not only of botanical and dendrological, but also of cultural and biohistorical synthesis, is beautifully expressed:

"Particular attention has been paid to books relating to dendrology, general descriptive botany, the cultivation of trees, the works of travelers in which appear descriptions of trees and of general features of vegetation, and in obtaining complete sets of the periodicals in all languages relating to botany, forestry, and allied subjects... books relating to the history and cultivation of trees and shrubs valued for special products, like tea, coffee, cocoa, oranges and their allies, chinchona, olives, the mulberry and its relation to the manufacture of silk, and others... it seemed desirable that the library of an institution like the Arnold Arboretum should contain all books in any way relating to woody plants... many books relating to forestry, especially those descriptive of the early efforts at forest management in this country and Europe, will be found in the library, although the Arboretum is a museum for the study and display of trees and shrubs and not a school of forestry ...".

③ ③ ③

Ladies & Gentlemen. - This morning, I tried to raise some points either of relevance to those concerned with the study (and particularly also of the implications) of gardens of the past or/and their reconstruction and maintenance, and to make clear that these two endeavours, though closely related, are not identical.

ANN LEIGHTON recently formulated this most appropriately with the following words, with which I may now conclude:

"the gardens of any period in history are its most intimate spirit, as immediate as its breath, and as transient. Yet, unlike all else about a particular time, they are capable of being recaptured and recreated today, in essence and in fact."

For the historic gardens and parks of the Netherlands, the danger-signal is alight

Part I

It was with some hesitation that I accepted your Chairman's invitation to tell you about the dangers which threaten the historic parks and the remains of historic gardens in the Netherlands. There were two reasons for this. In the first place, I am neither a landscape-nor a garden-architect but a lawyer; I live in a castle and do my best, as secretary-general of the Castellum Nostrum Foundation - of which I shall be speaking later - to look after the interests of the private owners of historic estates in dealings with the authorities. Secondly, there was the realization that I would be addressing a group of important experts from countries abroad where historic gardens are held in esteem and have had an important part to play, whereas in this country they have unfortunately been relatively little appreciated and have assumed lesser importance.

I have been contemplating the problem of what I should actually talk to you about, and have decided that it will be best for me to tell you of the political and social background against which you must view our castles, historic gardens and parks. Unfortunately, as far as the gardens are concerned, you will perhaps see little, and here I must ask you to have recourse to your imagination.

I assume you know little or nothing of the history of this small country and that you are unacquainted with the exceptional contribution it made to the development of Western political democracy.

You must imagine this country in the late Middle Ages as an agglomeration of earldoms, dukedoms, and so on, whose links with the ruler of the Holy Roman Empire were little more than symbolic. In these earldoms and dukedoms cities sprang up which maintained special relations with the local sovereign power; and here we can trace the origins of modern democratic legislation. Gradually a structure arose in which power came to rest with two large groups, the democratic corporations in the cities and the feudal lords on the land, both of them linked to the sovereign power.

Gradually the sovereign authority ceased to be shared out among so many and became centralized in the hands of the Dukes of Burgundy, who had established themselves in Brussels. The greatest - and also the

last - of the great Burgundy princes, was Charles V, ruler of the seventeen provinces of the United Netherlands, Holy Roman Emperor and King of Spain. He left the Netherlands to his son, Philip II, and his abdication heralded the coming of a major revolution.

What, exactly, was at stake? To this very day historians have remained divided on the question of whether the motives prompting the revolution were primary religious or political. It is not for me to pass judgment and fortunately this is not, in fact, necessary, since everyone agrees that both factors were influential. However important or otherwise the religious factors may have been, you all certainly know that the Burgundians and the Hapsburgs who succeeded them in the Netherlands chose the side of Roman Catholicism in the face of rising Protestantism; I shall therefore confine myself to an explanation of the political motives, since these are directly instrumental to a proper understanding of what you will be seeing on your excursions in this country.

I mentioned in passing that already in the Middle Ages the feudal lords had been up against the important concentrations of power represented by the towns. These towns did not derive their importance in the first place from the number of their inhabitants, but from the trade and industry which blossomed in them and the consequent very considerable dependence of the princes on the townspeople as a source of taxable activity. By the end of the Middle Ages a situation had thus arisen in which the power of the towns was so great that they could, practically speaking, extort written constitutions from the Dukes of Burgundy through their representatives on the States of the provinces, since they were represented on these side by side with the nobility which - together with the clergy - was to continue to rule the country until the Reformation.

Each new overlord, when he acceded to his title, was obliged solemnly to accept such constitutions and to pledge himself to observe them. I may mention, as an illustration, the "Great Privilege" granted by Mary, Duchess of Burgundy, on 14th March, 1476, to Holland, Zeeland and Friesland, which to a large extent resembled the charters granted, for example, to Brabant and Flanders, the following provisions being common to all of them:

1. To avoid undesirable dynastic complications, the overlord may not contract a marriage without the consent of the State.
2. Only local inhabitants may enter the public service (a very important provision at a time when the Hapsburgs were frequently calling on foreigners to hold high office.
3. The State may assemble as often as, and where, it pleases (hence without the consent of the overlord).

4. The overlord may not levy customs dues without the consent of the State.
5. The overlord may not wage war without the consent of the State.
6. No Dutchman may be forced to enter military service beyond the country's frontiers.
7. The overlord may make no decision contrary to the special privileges of the towns.
8. The overlord may mint no coinage without the consent of the State.
9. The overlord is not entitled to intervene in the town's finances or to inspect them.
10. Taxes may be raised only with the consent of the State.
11. No man may be declared to be expropriated except following a legal decision of justice, the right to judge such cases being entrusted to an independent lawyer.

The Great Privilege of Maria of Burgundy is, I would repeat, mentioned here merely in that it illustrates an important phase in the process which led to a manner of democratic legal order manifestly countering any form of absolute power on the part of the nobility.

It was precisely with this state of things that the Hapsburgs - and particularly Philip II - came into collision. The tragic element in the story lies in the fact that the Hapsburgs, in their political thinking, were in several respects in advance of their time. The Hapsburg rulers had neither time nor inclination to wait until the multiplicity of towns and of estates could develop into democratic units to be subsequently merged into a unified state. They were intent - and in this they were prompted by their legal advisers - on forcing the transition to a unified state and no longer depending on the approval of the citizens.

They started by infringing on the constitutions and so came up against the old privileges - both those of the towns and those of the greater and lesser nobility which ruled the land. There thus arose the heroic and famous conflict which nominally lasted eighty years - from 1568 to 1648 - before being finally brought to an end by the Treaty of Munster. At this juncture the northern provinces, which approximately comprised the territory of the present Kingdom of the Netherlands, became, once and for all, a sovereign republic. The reason - and this is a factor important to remember during your visits - was our ancestors' deep-rooted dislike of the nobility and its sway, which led them to decide, after much hesitation, not to invest sovereignty in the House of Orange (which so honourably and effectively led the revolution against the House of Hapsburg), but to let it rest with the States. The members of the

House of Orange thus became the most important Civil Servants - the stadtholders. Sovereignty, in the Republic of the United Netherlands, remained vested in the towns, and the latter therefore exerted the dominant role, so that there never developed an aristocracy around a powerful and great ruler.

It was the civic leaders of the towns, and not the nobility, who set the tone and owned the money. The old republic of the United Netherlands was a republic of wealthy burghers, with a few aristocratic and monarchical elements. Naturally, the stadtholders tried again and again to strengthen the monarchical element, but they did not succeed in doing so.

When William III, the greatest of the Orange leaders, made it his life's purpose to put an end once and for all to Bourbon absolutism - and especially to that of Louis XIV - he found that, in order finally to defeat his opponent, he would need to unite the weak and loosely-knit power of the Republic with the far greater and more highly centralized power of the Kingdom of England. The incidental fact that he was half Stuart and married to a pretender to the English throne enabled him to occupy that throne together with his wife and so to unite England and the Netherlands for the gigantic struggle against the Bourbons.

And what do we now find happening in Holland? The King-Stadtholder William III, who has now raised himself far above the rank of a mere servant of the States, assumes a monarchical attitude in his own country as well. He surrounds himself with members of the old nobility of Gelderland, on which he showers favours in a typically monarchical fashion - partly at the expense of the British Treasury

It is to these circumstances that we owe the emergence of a number of great historic houses, which in the normal republican society of the Netherlands would never have come into existence; moreover, William had a royal residence built for himself, the purpose of which was to serve as a home worthy of the leading opponent of Louis XIV.

When You see the Het Loo Palace you must bear this in mind, and you must also remember that the palace on the dam in Amsterdam - probably the most important historic building in Holland - was built not as a palace but as a town hall for what was then the most important city in Europe, and that it was turned into a palace only when one of Napoleon's brothers was puppet king of the Netherlands.

I may conclude this "bird's eye view" of Dutch history, by adding that, on the death of the Stadtholder-King, the country's career as a world power came to an end, partly as a result of the total exhaustion engendered by the struggle against Louis XIV, but also as a consequence of international political developments in general.

The eighteenth century, though it brought this country a great many cultural achievements, was not of interest from a political point of view. The later stadtholders were insignificant figures, and during the French Revolution the Republic broke up somewhat ingloriously, mainly, it may be said, owing to its inability to modernize its now antiquated public institutions.

The Kingdom of the Netherlands was, as You know, founded after the Napoleonic Wars, when the sovereignty was vested in William I, the son of the last stadtholder. Yet it has remained in a sense a democratic republic with a king, and the Dutch are still, fundamentally, disinclined to support a monarchical system, though they are anxious for the Head of the State to be a member of the House of Orange.

I believe, ladies and gentlemen, that this piece of history will have provided a sufficient basis for an answer to the question why we may look in vain in this country for great palaces, parks or gardens of royal standing; they have, indeed, never existed.

However there were, and still are, a considerable number of relatively plain fortified dwellings - castles, if you prefer - which belonged to the nobility and date from the Middle Ages; most of these were altered in the 17th and 18th centuries to suit the requirements of the time, and provided with grounds and sometimes a modest geometric garden. There also exist late 17th- and 18th-century houses built as country residences by the wealthy townspeople and merchants, and frequently these had fairly big formal gardens; most of these latter have unfortunately disappeared, though they have sometimes been replaced by interesting and important informal landscape gardens. I hope you will see examples of these in the course of your stay in this country.

There is one aspect I still wish to dwell on, and that is an aspect of the Dutch country estate which in my opinion is probably unique. Here I am thinking more of the country seats of the nobility than of those of the wealthy townsmen. What I would call your attention to is the simple and yet often interesting way in which a geometric pattern has been given to the agricultural land around the castle by means of ingenious divisions and by the planting of trees all along the lanes cutting through the estate. Such patterns, though of a rustic simplicity, confer on these "country places" a certain architectural beauty and dignity of landscape. Dutch architects have also succeeded in using water - whose role in this country is so important - in a simple but ingenious fashion to suit both agricultural and architectural requirements.

The typical formal garden is not a special feature of this country. It can be found on a grander scale and better designed on your country estates; but what are most typical of this country are what we call by the untranslatable

Dutch name of "buitenplaats", or, literally, "country places".

Part II

The social and economic background of the historic estates of the Netherlands

In the first part of my talk I showed how the "country places" in the Netherlands fell, roughly speaking, into two groups, i.e.

- a) Those originally surrounding a medieval castle and forming part of an estate (since castles almost always stood on lands of some good size.
- b) Those which were designed to surround a 17th- or 18th-century country house, built for pleasure, sometimes on the foundations of a castle destroyed or laid waste, and often forming no part of what we would call an "estate". Here we have the country residence and nothing more - though sometimes a farm was purchased in addition.

This latter type is more often to be found in the western part of the country, whereas the first-mentioned type is found rather in the east and south. There are no clear dividing-lines, though certain trends are understandable in the light of history. Thus, in the west the towns with their corporations had a prominent role in the days of the Republic, whereas in the eastern and southern provinces the country nobility continued for a long time to exert an influence.

It will be clear that the economy of the mere country residence will differ totally from that of an estate. The former may be viewed to a great extent as a large villa, whose high cost of upkeep supposes an owner drawing income from other sources. The residence which is part and parcel of an estate should, on the contrary, be financed out of the income from the estate, since the latter should be treated as an agricultural enterprise and the château with its garden should house the administration including the home of the owner and his family.

Even if we do not go at too great length into the financial question it will be essential for a thorough understanding of the matter to know that, while until the agricultural crisis of the last quarter of the 19th century such agricultural concerns were reasonably prosperous, there was subsequently a gradual decline. The result was that more and more frequently farms were handed over by their original owner to a tenant-farmer, to enable the owner to concern himself rather with forestry.

At the outset the situation was economically acceptable because rents were at a level which enabled a reasonable profit to be made, while wood prices were high enough to make forestry a worthwhile business. But after the Second World War rents became regulated by law and the government could enforce low rents, while at the same time the tenants' children became automatically entitled to succeed them. A situation thus emerged in which income from the

leasing of agricultural land had fallen to less than 1% of the capital invested, while timber prices had dwindled to an unacceptably low level. Naturally these two factors have made the running of an ancient estate an uneconomic undertaking, obliging the owner to bear the annual deficit on upkeep.

The fiscal advantages enjoyed by estate-owners under the Nature Protection Act of 1928 are not nearly sufficient to counterbalance these drawbacks. Here it may be of some interest to you to know what this Nature Protection Law of 1928 contains; it offers two fiscal advantages to estate-owners who have - by an act of free choice - decided to subject their estates to the conditions involved. For purposes of the property tax the estate is assumed to be a quarter of its size, while the value of that quarter is assessed at roughly 80% of its market value. The same applies to death duties.

As I have just said, these fiscal aids, however appreciable - and I felt that the basic nature of the law would be of interest to our English and other West-European friends - are totally insufficient to ensure a reasonable yield from the capital invested in such an estate.

It will further be clear that such insufficient yield figures will have a most unfavourable effects on the maintenance of country residences, formal gardens, parks, castles and other historic mansions. Landlords do not generally have nearly enough private income at their disposal to cover such maintenance costs, and even if it were possible to increase the yield of such estates this would in any case take a long time. It is true an improvement in output could be effected if the estate-owner returned to his ancestors' way of life and once again farmed his estate personally. This might prove a solution in a few cases; but here we are up against the difficulties mentioned above in connection with the rental problem. It is all very well to entertain a desire; one must also be in a position to fulfil it. And if agricultural land cannot be freed of its tenants one can scarcely set to work on it oneself.

Part III

Castellum Nostrum

I have given you an outline of the precarious position of our historic estates. The same applies to the others as well - by which I mean those estates without a historic house or castle.

To make clear to you the importance of all this in a country which is the most densely-populated in the world and in which open spaces are so scarce that

every square metre must be defended, I will now quote some figures. In the Netherlands there are still approximately two hundred and fifty thousand hectares (about 620,000 acres) of nature - and in "nature" I include actual unbuilt-on land, dunes, forests and estates, in addition to grounds which are the property either of the State or of private institutions for protection of nature. Of this total area roughly 80.000 hectares are covered by estates, from which it will be seen that Dutch estates occupy an enormous amount of space compared with that occupied by open country. Hence deterioration of our estates means very considerable damage to our natural scenery.

These developments have seriously perturbed the owners of the historic estates (those containing a castle or a historical house), and they have set up a foundation for the improvement of their upkeep. Their principal aim is to consolidate their interests and to act unitedly in their dealings with the authorities. The name of this institution is "Castellum Nostrum", and almost all the owners of historic estates have joined it. Its Council has drawn up a programme of action which covers the most important problems facing its members. A part of this has been implemented, and I am going to give you a few of the points on which action has been taken.

1. Whereas for the average landowner-resident the cost of maintenance may not be deducted from income-tax, owners of historic houses are now entitled to a rebate in the amount concerned, and this covers the maintenance of the outbuildings, canals, ponds, bridges, formal gardens and adjoining parks. This provision is contained in a separate article of the Income Tax Act, and the Council of Castellum Nostrum congratulates itself on having been able to reach agreement on this point with the Minister of Finance.

This initial success, as you will well understand, encouraged the Council of Castellum Nostrum to pursue its efforts.

2. The difficult problem of the insurance of historic buildings is being duly examined and will also shortly be settled.

3. The problem of regular inspection of historical monuments by the State to prevent their deterioration has likewise now been settled in principle. In the five provinces where an Inspectorate of Monuments now exists, subsidized by the Ministry of Culture, Recreation and Social Work, private castle-owners will be able to use the services of this institution in return for a small payment. The buildings in question will be inspected twice a year, and a report submitted both to the owner and to the Ministry of Culture, Recreation and Social Work, while small repairs will be dealt with on the spot.

4. Likewise as a result of insistence on the part of Castellum Nostrum, the Ministry of Culture, Recreation and Social Work is now, together with the

Government Forestry Administration, to draw up a list of existing formal gardens and informal landscape parks, a majority of which are the property of members of Castellum Nostrum, and register them for addition - should they duly qualify - to the castles and historic mansions already on the list of protected monuments. Unfortunately it has taken a long time in the Netherlands - too long in some cases - to reach the conclusion that if a garden and grounds cannot be divorced from the castle or historic mansion they belong to, neither can the castle or mansion itself be divorced from its garden and grounds. I must confess - and I assume this will be a matter of concern for you - that in this field the Netherlands lag a long way behind and are falling further and further out of step every day, and that the Dutch authorities, who usually display a certain amount of energy in the protection of culture and nature, have failed to respond adequately on this delicate point. I hope there will shortly be an improvement and that the inventorying of formal gardens and parks may be concluded in 1976.

5. As you may know, with regard to subsidies for restoration work the Dutch authorities have adopted a reasonably liberal attitude. As a general rule the owner of a historic monument receives an amount equal to approximately 70% of those costs which are eligible to be covered by subsidies. But once the restoration work has been completed the authorities withdraw, and the owner must manage all by himself. In the case of ordinary residences and farms this manner of dealing with things on the part of the authorities is understandable and often defensible; but for the great historic mansions and castles such a way of proceeding is not only unreasonable from the owners' point of view owing to the enormous rise in maintenance costs, it is also - more important still - unintelligible as a policy from the point of view of the community. When the restoration contractor withdraws his men, decay invariably sets in; and there arises the paradoxical situation in which the aid available for restoration is wanting when it comes to annual upkeep, which is beyond the owner's own means. Decay will set in more rapidly than before, involving fresh restoration work, when in 60 to 70% of the cases good annual maintenance would have been enough to prevent it. It is for this reason that my institution has approached the Ministry of Culture, Recreation and Social Work, with which it is now negotiating.

6. I now come to the sixth point and the one most important for the future as far as the activities of Castellum Nostrum are concerned. This connected with the general maintenance of the estates, including the castles, the historic houses, the formal gardens, the parks, etc. I told you earlier on in my lecture that the origin of the difficulties lay in the inadequacy of the yield from the estates, and pointed out that with a different form of set-up it would be

possible, very gradually, to achieve better results. The Council of Castellum Nostrum is of the opinion that we shall have to find a simple solution ourselves. Under present sociological and economic conditions, historic estates can scarcely be remunerative to run; but to admit this is to pronounce a death sentence on a very important part of the country's cultural and natural property - and this loss the country simply cannot afford. This is, indeed, the way the estate-owners see it, and fortunately the Netherlands government holds the same opinion.

Now there are two possible solutions: either the authorities take over the estates, or else a system of financial and fiscal measures is instituted which enables them to be maintained as private property. The authorities have expressly made it clear that they would prefer for financial reasons, to have the estates all remain private property, since management by themselves would work out more expensive than management by a private owner. Moreover, the authorities would not have the means of coping with the historic houses and their contents. They would find themselves with no less than a hundred museums requiring a hundred curators, a hundred foresters, etc. A live home housing a family and children is more attractive than an inanimate museum.

One difficulty in the Netherlands is that our houses are too small for the English system of throwing open one part only to be feasible. The norm in England is 10,000 visitors per year, which is not possible in the Netherlands. It is possible to throw open a house there on a given day, but only to ten, twenty or thirty people, not thousands. It should be mentioned, further, that 99.9% of the estates themselves, if we omit the houses, are already open to the public.

When the authorities declared, via the Secretary of State for Culture, Recreation and Social Work that, for the reasons I have just explained, it was preferred to have estates and castles retain their private status, it was of course to be understood that the authorities and private owners must join forces and together seek for a solution. Indeed I consider it as most important and historically relevant for the future of such estates and for all they have to offer our country in the sphere of culture and of natural beauty that the Secretary of State for Culture, Recreation and Social Work, Mr. Meyer, should have set up a Committee to this end composed of representatives of the private estate-owners, of his own Department, and of the State Forestry Service. The task of this Committee will be to investigate the problems confronting the estates - historic buildings, gardens and parks included - with a view to the drafting of recommendations regarding their maintenance. These recommendations will no doubt deal with the fiscal aspects of the problem. The property tax on estates open to the public will need to be reduced to zero and a subsidy for the upkeep

of the castles, gardens and parks will need to be provided. Probably, too, management agreements will have to be made, on the basis of which subsidies for the management and upkeep of the estates will be provided.

I do not wish to go any further into this matter here, since the Committee's activities are scarcely yet in their opening stage, and I hope to be having my own contribution to make to them. But I do wish to say, Mr. Chairman, that for the first time for years we can see a future dawning for the estates of the Netherlands and thus also for those Dutch formal parks and gardens which are of such great concern to

Lastly, Mr. Chairman, and in conclusion, I would like, as the Honorary Secretary of the Castellum Nostrum Foundation, to extend my warmest welcome to you and to all those taking part in this symposium on our country mansions, for - with the exception of those belonging to the State - all those you will be visiting or have already visited are the property of members of the Foundation. We have endeavoured, with the assistance of the representative of ICOMOS Netherlands, Baron van Asbeck, to show you average specimens of our country residences, large and small, well-kept or neglected. I trust, Mr. Chairman, you will have encountered the same devoted attachment to their estates on the part of all those owners who have received you - an attachment, Mr. Chairman, which is the guarantee that they will take proper steps to preserve their centuries-old cultural heritage.

Thank you.

Mr. Kamerlingh-Onnes
the Netherlands

Notes Submitted by Desideria Pasolini, Vice president of Italia Nostra and representative of the Italian National Committee of ICOMOS

The Italia Nostra Association has been studying - and is continuing to study - the problem of the preservation and conservation of historic gardens, and has been doing so under the following different headings:

- a) Gardens as historical evidence and not merely works of art or cultural property
- b) The preservation of ancient or original species of plants
- c) Ecological equilibrium
- d) The "use" of gardens for public enjoyment

It has, in short, been studying the role of gardens as historic open spaces within the Urban fabric.

I know the two subjects of this international meeting are to be the inventorying of historic gardens in peril and the choosing of plants for ancient gardens which are being restored. I believe these subjects are both important and urgent. But I feel that as ICOMOS is preparing material to submit to the October 1975 conference marking the close of European Architectural Heritage Year - the subject of which will be the protection towns - where Italy is concerned we should, perhaps, broaden our range of vision and consider a few other points as well.

Here we must quote the resolution adopted by the Assembly of Europa Nostra on 4th July, 1974, which incorporates and expresses the conclusions reached by Italia Nostra after years of study:

"... the Assembly recommends the acceleration of regional planning and the assignment of distinct areas respectively to agriculture, forestry, new towns, leisure and the protection of nature..."

The study of the use of land implies planning, and also involves overall conservation through anti-pollution measures for the protection both of vegetation and of human life, the systematic location of industries at a long distance from both towns and beauty spots, the regulation of traffic, town-planning, and new legislation.

In its preparations for European Architectural Heritage Year, Italia Nostra has stressed the importance of properly conserving historic towns by fully preserving all their open spaces and historic gardens. In Italy in the last century hundreds of gardens were sacrificed and destroyed, always for the same reasons, namely, lack of planning, speculation in building land, indifference

towards the cultural importance of gardens, indifference to their social and sociological value in an urban built-up area, and indifference to the cost of upkeep and of taxation

Luckily, public and regional opinion have been becoming more aware of these problems during these last years. But unfortunately a lot of damage has been done and only a small portion of it can be repaired - and is, in fact, to be repaired by scientific methods

Our present Minister, Professor Giovanni Spadolini, the first to hold the newly-instituted portfolio "dei Beni Culturali," has taken the matter to heart. Collaboration between the State and the regions can be feasible. Laws on the protection of gardens have not so far been adequate; and we are drafting a bill on the subject for submission to Parliament. Under the existent law it is possible to list a building with its garden or a historic garden by itself, while a further law enables trees or landscapes to be listed. But these laws are inadequate, and availing oneself of them is a long and difficult business, while in the meantime far too many open spaces are being left unprotected. We are requesting that the Council of Superintendents of the Fine Arts should have on it an expert from the Ministry of Agriculture, a representative of the Universities and a landscape-architect, to render it competent to assist in the restoration of gardens. We also consider that the purpose and practical use to be served by a historic garden should be covered and regulated by national as well as regional legislation.

The restoration and upkeep of a garden are, of course, a great financial burden, and we are therefore asking for tax-exemption for private owners. We believe that the function of owner can still be very important where the owner is a highly-qualified curator who is an integral part of the community and works in harmonious collaboration with it.

The protection of a historic garden must be an overall operation, and the garden must be an essential part of a general scheme providing open space for sport and leisure both in the town and outside it. We shall not be able to protect or save historic gardens or valuable botanical gardens in Italy if we cannot at the same time give our ancient Italian towns a modern system of open spaces - including playing fields and playgrounds open primarily in the summer months - for the several benefit of old people, invalids, schools and younger children. All these categories are entitled to such outdoor facilities over and above the historic gardens; but if the municipalities fail to provide them for these specific users the public is bound to put heavy pressure on the historic gardens themselves. Some of the latter in Italy are unfit to become playgrounds or sportgrounds; very often they rather resemble museums or fragile botanical gardens.

It would be a great achievement if there were regulations governing their use,

alternate opening days, school visits, botanical exhibitions to illustrate their history, and film-shows.

Since 1969 an excellent law has been in force in Italy, the passing of which was partly due to pressure from Italia Nostra; its title is: "Legge degli Standards Urbanistici". This compels municipalities to determine, in their town-planning programmes, the number of square metres of open space required per head of the population, in accordance with the national legal norm, and so decide on the area to be available for public gardens, school grounds, etc. The law applies to the country as a whole and is an excellent one, but it has often been misinterpreted, and the resultant confusion and ambiguities have been most harmful. Town-planners have often been influenced by pressure from other quarters, and to arrive at the quota prescribed by law, have been obliged to include historic gardens or parts of them, or such things as historic or archaeological sites, in their open spaces or "standards urbanistici". In several instances gardens, parks or villas have been cut in two or isolated from the building they were designed for and of which they were the setting; frequently they have been split up by a road and their whole plan damaged.

There are unfortunately tragic cases of this all over Italy (one example being the Villa Lucelletti at Frascati).

This is one of the laws whose interpretation as regards town-planning Italia Nostra is trying to have altered. Indeed, if historic gardens or grounds had a special law to protect them, towns would immediately come to enjoy far larger total areas of open spaces, comprising gardens and sports grounds alike, and both would be far better kept.

In a word, the proper upkeep of a historic garden depends greatly on proper townplanning, of sports facilities.

Once it had begun to make inventories of historic gardens in certain specimen parts of Italy, Italia Nostra found itself faced with a huge problem, which was that in Italy you cannot confine yourself to listing only the major historic gardens

One of the principal characteristics of an ancient Italian town is its gardens of minor importance which have still miraculously survived, both in the centre and on the outskirts, and which form a part of its traditional design. Sometimes the area covered by such gardens is modest in size and hidden from sight, and part of it may still be farm land; it may have acquired historical interest because its form is typical of its period, because of its location near a monument, for the historical circumstances of its origin, or for botanical reasons. Such areas are also worth

preserving for their trees and hedges, and for their lawns, which provide an open space behind buildings. They may have originally been the green setting of a church or been hidden within the walls of a convent and possessed a charmingly-designed orchard, or verziere, surrounding an old well; they may have been the grounds lying around the keep of a castle, converted into a garden in the 18th century, or have been partly garden and partly orchard, inside an ancient fortress, or the remains of an old 16th-century vineyard designed and laid out with exquisite taste around a Roman aristocratic country residence. Then there are all the "Sicilian Gardens" of Arab origin along the slopes of Etna, laid out round small country villas and planted with orange-and lemon-trees; their excellent scientific drainage system still works efficiently and there is a charming effect as one approaches the house, deriving from the systematic mingling of decorative plants and flowers with the orange-trees. Some gardens in Rome are the last remaining vestiges of great historic gardens forever destroyed by acres and acres of new buildings (The badly decayed villa in the Piazza Vittorio Emanuele is the last fragment of the famous 17th-century Villa Montalta).

We also have memories of lovely Italian hanging or secluded gardens in seaboard towns (Naples, Sorrento, Amalfi), shielded from the sea-winds and salt air behind the high walls of convents and palaces. Their charm is gentle and secret; their beautiful and unique character deriving from the creepers on their cloister columns, their deep wells and lovely Majolica pavements.

I admit that here we may tend to embrace too much. However, it is the declared opinion of Italia Nostra that within the framework of Architectural Heritage Year we must preserve this wider aim. If we lose the lesser parks or gardens which have become essential as part of the ancient fabric of our towns, the old towns of Italy will lose not only their significance but their very essence. For we must confess that, while present-day society is destroying its gardens and open spaces as though they were a thing of the past, that same society has not yet invented its own form of open space. Our society is losing touch with nature at a definite and regular rate, and the balance between life in society and natural life would appear to be lost forever.

The purpose of this meeting is partly to draft a list of historic gardens. But it will now be necessary to list historic grounds of minor as well as major importance for inventorying and photographing and subsequent protection, complete with whatever vegetation they may contain.

We must consider ourselves obliged to protect such minor beauty spots in their entirety, and this will mean preserving, or possibly re-creating, their original

plan and design, their buildings, equipment, decoration, sculpture, irrigation systems, ponds and fountains, and also their original vegetation.

I shall now try to classify some of the various possible examples under a number of different headings. These are the headings which we are pressing the Ministry to pass on to the regions and municipalities as a guide to what is to be listed and protected.

. Earlier and more recent gardens laid out around archaeological sites

The gardens laid out years ago around excavated ruins are of the greatest interest. We believe that in Italy our best landscape architects so far have been two archaeologists, Professor Giacomo Boni and Professor Spinazzola. Professor Boni planned the Orti Farnesiana on the Palatine and also selected the vegetation - cypresses, orange - and pomegranate - trees, as well as other trees and bushes described by Pliny or Garta. He achieved similar results on Horace's farm in the Sabine hills, where he planted lilies and roses, either growing over the ruins or set in regular hedges to mark the original design of the walls. At the Danzig Congress in 1909 he stressed - the first person in the world to do so - the importance of landscape, especially original vegetation, as a setting for ruins and excavations; besides being one of the world's most outstanding experts in archaeology and practical excavation, he was a leader in his own field. As for Professor Spinazzola, it was he who in 1911 laid out all the olive groves below San Martino in Naples - a most wonderful combination of architecture, ruins, landscape, olive-trees, roses and the rest, which remains an example for future generations. The problem of landscaping and planting along the Via Appia is a difficult one, but Italia Nostra is financing a project to level the roadside and replant the appropriate vegetation, namely, cypresses, acanthus, laurels and so on.

2. Medieval gardens and cloisters in convents and monasteries

Medieval Italian towns are still full of these precious and lovely works of art, important both as architecture and for the history of gardening and domestic agriculture. Their principal characteristic features were apple and other fruit trees and hedges of aromatic and medicinal plants; some of them have continued their secluded but useful existence over the centuries. (An example is the garden of the monastery of Santo Speco on the hills of Subiaco and the ancient olive-grove below it). Most of these gardens could be rescued and restored to form those delightful settings we can admire in the backgrounds of Siennese paintings or in frescoes painted before Giotto's day.

One of the most famous cloisters that could be restored is that of the Santi Quattro Incoronati in Rome.

3. Renaissance gardens and "verzieri", or orchards, inside castle walls and along the fortification surrounding keeps

A remarkable reconstruction job has been done by an architect named Cevalley on the Manfredi Balduino Castle near Pavia. Italia Nostra has financed a project for the replanning of the gardens of Belriguardo near Ferrara, and hopes to finance the scheme for restoring the gardens of the Padula charterhouse. Some of the fortresses or "rocche" in the provinces of Emilia or Veneto which at present have only a dusty courtyard could have their gardens restored or reinstated.

4. Renaissance gardens in the courtyards of palaces

Here we think of the handsomely-shaped lawn behind the fine courtyard at the Palazzo Farnese in Rome, which we cannot but contrast with the garden of the Palazzo Spada in the immediate vicinity - now a car-park.

5. Small gardens and grounds behind baroque palaces

Though small in size, these provide a satisfactory visual setting for their baroque buildings; there are large numbers of them in Bologna, Venice, Verona and Padua. They are, as it were, a projection or continuation of the building itself, giving an impression of depth and space. To mutilate them; divide them up by cross walls or hide them under new buildings is not mere vandalism; it is also proof of a lack of culture.

6. Roman vineyards (vigne)

These used to be planted around a casino or aristocratic country residence, for places of leisure as well as sources of income and one can still see the remains of some of them on the outskirts of Rome. In the 16th century some of them developed into the great parks of the residences of the nobility. One can still see the walls which divided the garden and vigna from the open country, and one can still admire imposing gateways which appear incongruous enough in the vicinity of an old farmhouse. However, with patience and with the aid of archives it should be possible to determine the plans of the original gardens (as at the Casale Strozzi)

The Villa Troyli, once the residence of the Duke of York, used to be a magnificent villa which had originally been a vigna. Italia Nostra is fighting to save the building, nymphaeum and garden from the speculative builders.

7. Olive groves around minor Florentine villas and farms

On the outskirts of Florence, half hidden by walls, are still to be found olive-trees, lemon-tree orchards, fountains and tiny Italian gardens - a testimony to the continuity of a highly civilized society in which art, agriculture and business were harmoniously mingled.

8. Sicilian "giardini"

This is the name given to the orange groves dating back to the time of the Arab domination which still flourish on the slopes of Etna near Catania as the gardens of picturesque 17th- and 18th-century buildings.

9. Secluded gardens in seaboard towns such as Naples, Amalfi or Sorrento

We may still admire these roof gardens or hanging gardens; they belong to many different periods and adjoin convents as well as private houses. With their many strongly-scented plants and herbs and their wistaria or other climbing plants they are a miracle of affectionate devotion to gardening in an area - for such is Southern Italy - where scarcity of water gives flowers and fruit-trees the quality of rare and precious things.

10. Botanical gardens in Rome, Florence, Palermo and Padua

11. Orchards and gardens behind the more modest 18th- and 19th-century palazzi of the Italian provinces

These are often enhanced by the presence of rare and beautiful trees and that seldom-met quality which gives the palazzi their nobility, speciousness and proportions.

They serve to provide the towns with those patches of greenery they need for both aesthetic and ecological reasons. Let us for a moment imagine some of the picturesque palazzi in the Marches or Romagna without their gardens. These would lose their whole character, for the fine staircases or loggias at their rear call for an open space with an avenue of trees to set them off.

12. Open spaces behind medieval town walls

These are to be found in Ferrara, Verona, etc., in the form of orchards, nurseries or gardens with picturesque sculptured walls.

13. The earliest late 19th-century public parks

These provided the first visible evidence of the new policy of urban planning which followed unification of the country.

In the 'seventies, gardens in the form of a square were planted round the monuments of the Risorgimento; they were filled with exotic trees (palms, sequoias, etc.) donated by politicians who had visited the great international exhibitions in London Paris or Florence. Rather larger were the "Gardens of Remembrance", generally on hills not far outside the towns; these were well designed and full of beautiful trees in whose shade were to be seen portrait heads or busts of the heroes of the Wars of Independence. Still larger sometimes - five acres or more - were the big Piazze d'Armi where military parades used to take place. One may still today, on the outskirts of many towns in the Po Valley, admire these broad open spaces with their double line of gorgeous plane or linden trees. Some of them have been sacrificed in favour of swimming pools and Disneylands - which is absurd.

14 Single trees and avenues which deserve to be protected as the remains of great historic avenues.

Every single plan tree in the Viale Carlo III leading to the palace in Caserta should be protected by law, as should the wonderful elms and illexes which grace and enhance so many of the Roman parks, and are all that are left of the once-famous Villa Massimo, the Villa Ludovisi, and others still.

15. We must not forget the "arts nouveaux" or "liberty" villas of the early 20th century with the charm of their willows drooping over lakes covered with water-lilies, their many hydrangeas, and their cypresses or oaks which are often survivals from earlier Renaissance gardens (These are found on the Ligurian coast, the Lombardy lakes, etc.)

16. Hanging gardens and terraces

Original hanging gardens dating from the 17th and later centuries are still to be found; in character they are at once gardens and terraces. Their vegetation is of a very special kind and largely consists of overhanging flowering creepers.

An Exemple is the Palazzo del Grillo in Rome

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Though I have been dealing with minor historic gardens and parks, I am not forgetting the great ones, several of which, though duly classified, still need to be protected. Several have undergone severe mutilation and are giving rise to enormous problems, owing to their incompleteness, lack of water, and want of maintenance personnel, the unsuitability of the plant grown, the need for restoration and the lack of park-keepers and custodians. However of these gardens, too, we shall have to draft a complete new inventory. We are hoping that a part of the zoo at the Villa Borghese in Rome may be done away with and the area it covers restored as a part of the park. There is also a big campaign afoot as a result of which we are hoping to have the motor-racing track abolished at Monza. The Villa Pamphilia, unique because it unites several kinds of gardens and parks, and severely damaged, is to be repaired as a result of the campaign at present being carried on by Italia Nostra.

These are only a few examples out of the hundreds of problems we are daily meeting with or forcing to the attention of public opinion while pressing the Government, Parliament and the Ministry to pass protective legislation.

Italia Nostra is also trying to encourage local associations and trusts to help the local authorities and the Sovrintendenze (which are the network of local offices of the Ministry of Cultural Property) to draft the lists of gardens to be protected and have photographs made of the gardens, cloisters, parks and so on which I have just been mentioning before they disappear

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The Association for the Defence of Culture in the South is at present, with great skill and speed, making an inventory of historic gardens in Naples. This big achievement should serve as an outstanding example which should spur the State on to pursue this highly important work further.

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To conclude, I express the hope that:

- 1) Historic gardens and open spaces in historic towns which are an integral part of the ancient urban fabric will be protected and scheduled as open spaces.
- 2) Each historic garden may be made the subject of a permanent exhibition comprising the original plans, drawings and other documents, for the use of schools and visits in general.
- 3) A study will be made of a draft European code of legislation providing for tax exemption.
- 4) Protection areas may be created around historic gardens
- 5) There will be instituted a "roll of honour" of the best preserved or restored historic gardens, as an incitement to public and private authorities to follow the example.

DESIDERIA Pasolini
ITALY

^{CHRONO}
HISTORICAL GARDENS IN THE FEDERAL REPUBLIC OF GERMANY
RISKS AND EXPERIENCES ✓

Miss Gerda Gollwitzer

Why were historical gardens included so late in the protection of historic monuments? Only in the past years the surroundings of the buildings have been subject to ensemble-protection; in addition to the châteaux their parks are a protected.

For the preservation of gardens quite different criteria hold true than for inanimate works of art. The aversion of some art historians to these most changeable transient and perishable works of art is therefore well-founded. Gardens are living monuments. They are never terminated but are subject to ever-constant change because of their continuous growth. For the preservation of buildings the principle is to preserve them in their purest original form. This principle, however, holds true only for one style of garden; the formal baroque Garden. (We shall see an example of that later on).

But also in the case of formal gardens the hedges and trees have to be trimmed. ^{THEY MUST BE}
Only then can their verdant architecture be clearly featured as it is to be seen in historic designs and engravings.

On the other hand an English picturesque garden takes many years to develop tree-tops fully and thus to achieve the spatial effect which the designers intended. For landscape architects who are in charge of picturesque gardens it is therefore even more important to study sources and descriptions. But especially those plans and books demonstrate the difficulty of representing the spatial effect of picturesque gardens in designs.

For that reason, Christian Bauer, a well know expert in historical gardens in Munich, has drawn up so-called "Parkwerke" for the gardens in his administration. In these directives he describes the measures which have to be taken in the next fifty years in these gardens based on studies of available historical documents.

Additionally to the peril ^{MINOR} of biological ruin new dangers have arisen which the designers of the historical gardens could not have imagined. The former princely seats are no longer situated outside of the city boundaries but in the middle of densely populated areas. Cities have expanded in the last two centuries beyond the former country seats. Just take as examples Munich-Nymphenburg or Hanover-Herrenhausen,

the Bois de Boulogne or the gardens of the Medici in Florence.

From this wholly altered environment various dangers result for historical gardens;

- 1) The terrain of the gardens has become costly and highly wanted building ground. Many gardens have already fallen victim to the intensive expansion of our cities, others have survived only as fragments. The ^{historical} recreation value of many gardens has diminished for reasons of noise and pollution. It is therefore encouraging to see citizens co-operating in the conservation of historical gardens. When the citizens are duly informed of threatening dangers they sometimes succeed in averting some dangers by way of "citizens initiatives".
- 2) Traffic is expanding with the city. The noise ^{disturbs} penetrates the old gardens, streets often cut through them relentlessly. The cheap land tempts the traffic agency to build streets through a park instead of acquiring ground in populated areas. In order to find the best solution for everybody concerned a great deal of alertness plus intensive discussions with the traffic planners are demanded.
- 3) Whereas the palaces became museums the surrounding gardens are now the living property of the population. Karl Hauszer sums up the impact made by historical gardens as follows: "To get refreshment, to be able to relax in the setting of works of art means more than merely breathing good air. In addition it always means unconsciously absorbing a piece of culture".

The more uniform our cities grow the more the inhabitants are drawn by the magic of the old gardens. In the English Garden in Munich for instance on a nice summer day more visitors were counted than in the Zoo or at a famous football match. This is a very satisfying development. However, great problems are resulting. Those old gardens were not planned for such masses of visitors. Not only their pathways are not made for so many walkers but the gardens also lack the required facilities. How many lawns ^{lawn} should be allowed to be used for sun-bathing areas and for playgrounds without disturbing the view and impairing the quiet and rest for which people are longing in those old gardens? Is it ^{inconceivable} sacrilegious to establish a café or a restaurant in historic gardens like, for example, the café in the orangery of the Hanover-Herrenhausen Gardens or the restaurant in the Boboli Gardens in Florence? Or do such facilities increase the pleasure of a longer stay in the atmosphere of a historical garden?

Should we fulfil the requests of the population and how much justified are such demands for more comfort?

The administrators of the Kassel-Wilhelmshöhe-Parc, for instance, for several years have been contesting the construction of a restaurant because that building would detract from the view of the famous colossal statue of Hercules.

In this short report I can only give some suggestions of the extent of the problems facing the protection of historical gardens. Those problems ICOMOS realized in time and established the International Committee for Historical Gardens in common with the international Federation of Landscape Architects. This committee has now to be active above and beyond the organisation of meetings. It should gather, evaluate and make public the experiences in preservation and restoration of historical gardens. In the report on the symposium in Fontainebleau in 1971 the main problems are already very well formulated. It is high time now that working groups concerned with those questions are established.

The problems are urgent and their solutions allow in many cases no delay. Buildings in danger of falling in can be protected by scaffolds. Endangered gardens, however, can within a few years run wild to such an extent that they are lost and cannot be restored any more.

These are merely some ideas which should be discussed in these days. Let me finally show you the result of the largest German garden restoration in post-war time; the 300 year-old garden of Hanover-Herrenhausen.

On the left you see Herrenhausen in an eighteenth century engraving, on the right an airphoto after the restoration in 1966.

The great Garden is the historical name of the Herrenhausen Park in Hanover. And indeed like a great garden it is enclosed by a canal and three rows of large trees.

In 1692 when the duchy of Hanover became an electorate the "Nouveau Jardin" was added. There is no doubt that this part garden was influenced by the new trends in the art of gardening which had originated in France; bosquets linked by diagonal with the great fountain which is still a landmark at the centre of the garden and smaller fountains at the crossings of the axes. The parterre is flooded by sunlight the area of the bosquets is cool and shady.

The Duchess Sophie, wife of Duke Ernst August, was the ideal architect of this princely seat. Until 1714 Herrenhausen was the brilliant stage of the Hanover court, a centre of European intellectual life at that time. Scholars were attracted not only by the Elector and his consort but by Gottfried Wilhelm Leibniz, the well-known philosopher, historian and scientist, learned in law and philology. But a sudden change put an end to the splendour of Herrenhausen. In the summer of 1714 Electress Sophie died suddenly while walking in her beloved garden, and a few weeks later her son became King of England as George the First. For many years Herrenhausen was visited only for short summer holidays and so the great heyday of Herrenhausen abruptly came to an end.

This is the reason why the Great Garden did not fall victim to the garden revolution

that ruined such a lot of formal gardens in Europe. There were only a few changes in the Great Garden; exotic trees and shrubs were planted in the nineteenth century, the parterre de broderie was transformed into lawns, hedges and trees were left untrimmed and grew into a picturesque site. In 1935, Herrenhausen became the property of the city of Hanover, which did its best to preserve this great architectural heritage. After two years of restoration the garden was opened to the public. After a short time, however, the garden had to be restored again, this time not because of neglect. During the war bombs had destroyed the castle and devastated large areas of the garden.

In 1966 the third centenary of Herrenhausen provided an opportunity to restore the garden even more thoroughly than before. Professor Karl Meyer, the landscape architect, who was in charge of the garden, was as devoted to it as Electress Sophie had been in the seventeenth century. He began by studying carefully all relevant sources in the archives of Herrenhausen, the contemporary literature, the voluminous correspondence of the Electress and the old plans and engravings. In 1959 a seven-year-plan was drawn up. All aspects - buildings, planting, water works - were coordinated. The governing principle was to restore the original layout of the garden without the romantic later additions and to preserve the historical continuity.

Parterre de broderie:

The heart of the garden is the large area which was in front of the castle, called the "Luststück" (= pleasureground). Since the original plan was lost, the parterre had to be designed anew.

In order to prevent grass from spreading into the ornamental motifs every piece of turf was bound by metal tape. Where marble gravel was used grooves were dug in the soil and half-filled with sand. Then the surface was spread with Italian marble gravel.

The curving lines of the decorative patterns were planted with box (*Buxus sempervirens*).

For the flowers the ruling principle was to select those species which were easiest to cultivate. Of the great variety only a few proved suitable. Alternanthera, leaf plants with three shades of color, form the decorative patterns, thus guaranteeing that the colors remain unaltered all summer.

Statuary:

Statues are an important feature of formal gardens. They provide a visual connection across the wide areas and enhance the festive atmosphere. It was only when the garden was redone in 1966 that restorers were bold enough to give the figures in the parterre the dazzling appearance they had had in the Baroque age. Colours, permeable to air, colours that breathe, tend to make the statues eternally young, immortal as the gods they represent.

In Europe there is much controversy about polychrome painting in historic gardens.

The painting of sandstone statues which are today mostly copies of the originals is similar in spirit to the exact pruning of the natural growth of lindens and hornbeams. In the eighteenth century people did not hesitate to change them to obtain the color and shape desired.

Cascade:

The east wing of the castle of Herrenhausen is continued by a cascade, a motif of Italian gardens. During the war the cascade was damaged to a great extent, but after its careful restoration it looks now exactly as it did in the seventeenth century.

Hedge Architecture:

Herrenhausen has been called the most geometrical garden of Europe. The impact of the mathematician Leibniz is evident. The trimmed hedges symbolize the power of man over nature. Here you see sketches for the trimming of the hedges in the parc of Veitshöchheim near Würzburg. The same work had to be done at Herrenhausen. When the restoration was necessary the trees were nearly 300 years old. In order to give a satisfactory impression the trees of the alleys were replanted and are always clipped very carefully.

Orange garden:

Since the original plan was lost the orange garden had to be completely redesigned. Much care was taken to get orange trees as well as terracotta tubs from Italy. Then the chessboard beds were laid out with box and gravel of coloured marble and the orange tubs were put on them in the strict rule of the quincunx. There may be some difference of opinion about this new garden, for instance whether the broad paths are quite in keeping with the overall proportions. But whatever the reservations the garden revives something of the beauty of an eighteenth century orange garden.

Theatre:

The garden theatre lies on the central axis of the Gallery. The design is enhanced by the central perspective leading up to the royal box. The shape of the auditorium is like an amphitheatre.

On the left there is a coloured engraving which shows the theatre in the eighteenth century. On the right you see it in its ruinous condition after the war.

The statues in the theatre are cast in plaster and covered with lead a few millimetres thick, then coated with gold leaf.

Graft:

The canal, called the Graft, encloses the Herrenhausen garden like a fence, separating the estate as a work of art from its surroundings. Two airy pavilions in the French style provide the alleys with points de vue. During the war sedge, bulrushes and grass had transformed the canal into a romantic wilderness. The mud had to be cleared out and the banks trimmed again before the sprinkling waters could return.

Water:

In the formal garden the shimmering surface of the canal and the exciting rise and fall of the fountains provide a lively contrast to the stiff, uniform green architecture of the trimmed hedges. The great fountain on the main axis of the castle was always the symbol of Herrenhausen. Here you see it on a medal, struck in 1701. "Vis insita ducit in altum" (= Inner strength leads to heights)- is the proud legend it bears. The back of the medal shows the castle with the parterre and in the background the waterwheel, the main item in the water system. But nowadays electricity allow the fountain to rise 250 feet above the treetops. It is now the important landmark that the creators of the garden intended 300 years ago, as we have seen it represented in the contemporary engravings. The whole garden is enlivened by a network of fountains. The sound of splashing, gurgling water accompanies the visitor everywhere.

Lighting:

Festive celebrations usually take place at night. A whole network of cables provide the entire garden with light. The bell fountain at the centre of the parterre is always an irresistible magnet for the visitor. Light makes the great fountain gleam like magic.

Automation:

The most expensive item in preserving the original past of a historic garden is labour. Therefore all the watering system, the fountains and the lighting are regulated automatically and controlled from one central point. This was an expensive installation but in the long run it saves enormous sums which otherwise would have been spent on labour. It seems to be a paradox that historic gardens can only be preserved with the help of modern equipment. But without this in our experience historic gardens always fall into decay because it is impossible nowadays to pay the high wages of gardeners.

In the age of Absolutism the power of princes compelled their subjects to work in their gardens - we know the unfortunate background of these pleasure grounds. Now that the gardens of princes have passed into the possessions of democratic society, modern technology serves to preserve the great heritage and keep it alive, and it will help us to endow our great past with a future.

Gerda Gollwitzer

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