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 coloquium, 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 menticned. 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 arboretums 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. OLDENBURGER & 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 hiterto 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 giaridini dei semplici.

These considerations bring us to the following conclusions, i.a., 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, especialy 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 lanscape 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 - "ôu 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).

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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 Horticultura 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. 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 infuenced 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 ...".

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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."