OBSERVATIONS CONCERNING
THE CONSERVATION OF MONUMENTS
IN EUROPE AND AMERICA

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I. THE CLASSIFICATION OF MONUMENTS IN EUROPE

The question "for what reasons are monuments classified in Europe" cannot be answered by enumerating specifically a number of criteria used in various European countries. No such criteria are embodied in law. However, seasoned by the experience of more than a hundred years a certain general policy has been adopted, varying according to the needs of the different countries, which will be pointed out in so far as conservation procedures are concerned.

Before entering the discussion it ought to be stated that an immovable "monument" as an object of conservation is practically always thought of as some kind of building of historical value, while technical structures of historical value are only gradually being accepted for conservation in increasing numbers. Sites of historical importance without visible cultural remains, or areas important for their scenic beauty or interesting from the point of view of natural history, are still more belated in finding recognition.

While it is impossible to study the situation country by country the only procedure seems to be to examine the major trends which determine actual methods of conservation in Europe. Two main principles have been combating each other throughout the whole nineteenth century:

(1) The French restoring and rebuilding method, mainly represented by Viollet le Duc.

(2) The English consolidating and conserving method as promoted by Ruskin, Morris and Webb.
Since 1877 the English method made its influence felt and finally gained undeniable superiority. "Conservation" as a deliberate policy was started in France by introducing the idea of the "Historical monument" ("Monument historique") which ought to be preserved and taken care of by the government. For this purpose an administrative board was set up in 1830 with the aim of providing an inventory from which a choice could be taken of those monuments which were thought worthwhile preserving. In 1830 this inventory was defined as being:

a critical description of all buildings, which by their date, the character of their architecture, or by the events of which they have been witnesses, deserved the attention of the archeologists, the artist and the historian. (Leon, Paul, Les monuments historiques, Paris 1917).

The duty of the administration was considered to consist in supervising the conservation of these buildings by advising the government and local authorities as to the means of preventing or stopping their decay.

During 100 years of existence of the above mentioned administration, many attempts were made to work out a system of classifying monuments at first by trying to introduce a certain order according to which monuments would be divided into classes in regard to their merits; granting preferential treatment in proportion to their value. This "classification" was never adopted. However, the "classement", i.e., inscribing certain monuments on a list of monuments to be protected, (this is called "scheduling" in Great Britain) was and is still carried through.

Which rules were applied to cause monuments to be put on this general list? The vague answer given by Leon in his Histoire des monuments historiques is, that concerning this subject "ideas have changed very
much" ("Les idées ont beaucoup variées"). Indeed, after examination of the examples León gives, it is safe to state that there have been no persistent principles. Points of view have been changing constantly. In the beginning the "classement" of an object was frequently due to political or historical considerations. But as early as 1841 it was officially remarked that a "building is interesting on account of its architecture." More and more architectural and archeological interests prevailed in considerations as to the importance of any building.

Thus, in 1875, when the house of the famous poet La Fontaine was examined for preservation, it took a very long time to place it on the list as its appearance was thought to be "insignificant". It also was thought to be sufficient to place a marker on the house in which Victor Hugo was born and not to protect the whole house. In evaluating such a statement it must, however, be remembered that at that time the showing of a house in the state it had been used by some celebrated man was very rarely done. Perhaps the earliest example is the bedroom at Fontainebleau which throughout the twenties was left exactly as it was when Napoleon left for Elba in 1814. It seems, however, that such conserving was only done in outstanding cases. Throughout the twentieth century interest in the "milieu" in which famous men had lived increased and in 1906 and 1912 the houses of novelists like Flaubert and Balzac were put under protection.

The "classement" of such "biographical" sites however was very rarely decreed as compared to those chosen for artistic or archeologic interest. Sites of historical interest were, as one may say, never put
under protection unless there was some monument or church or something of the kind to serve as the physical reminder of the event and which was the real object of protection and not the entire area. If a monument was classified on account of its artistic merits it needed to be of national interest, representing a certain artistic school or a certain epoch (1848). Later this programme was frequently revised for various reasons. The most important alteration in its principles was caused by the law introducing the "separation" between church and state in 1905. After this date all churches were deprived of their usual funds for upkeep, and consequently every one of them possessed of the slightest artistic merit applied to the state to be classified. The novelist, Peladan, writing a pamphlet in defense of these churches, estimated the total of churches before 1600 to be something like 10,000. As a result, the "classement" of objects which had averaged up to 24 per year between 1900 and 1905 climbed up to 200-300 after 1905. To meet these urgent needs a bill was proposed to put under protection all churches built before 1800. Though this bill was not passed, it can be safely assumed that every ecclesiastical building of any artistic value by now will have been "classified". As to "civil" monuments, i.e., privately owned ones, a law was introduced in 1913 which authorizes the state to impose the "classement" on such objects. Certain objects of limited interest can also be included in the "inventory". Inclusion in the inventory deprives the owners of the right to let these objects undergo any changes before announcing their intention to the government and asking for its approval. Thus the government is given sufficient time to intervene or to include the object in the "classement" definitely.
Such flexible shape of the "inventory" and "classement" procedure, makes it possible to apply the system to objects which are in any imminent danger.

"Restoration" or "conservation" was carried out in Great Britain throughout the first three quarters of the nineteenth century entirely as a private enterprise unhindered by any governmental restorations. The consequences were bitter and wrath was great among those who were interested in historical and aesthetical values and saw their continuous destruction. Followers of John Ruskin were the first to take the initiative. Among these the painter, William Morris, gathered followers to prevent future restoration to be based on the principles of Viollet le Duc, or to be executed in the casual way a private person might think fitting. Morris' movement resulted in the foundation of the "Society for Protection of Ancient Monuments" in 1877. This society with its manifesto first published in 1877 - which, with only one minor amendment is still holding good - steadily grew in influence not only in England but also in all countries interested in conservation policy. Well known as these principles are, it might properly be said here that Ruskin and his followers wished to preserve old buildings in the state they then were. Modern technical methods should be applied, but only for the purpose of making the building as firm as possible without changing the outward appearance. No additions or reconstructions were to be made; if modern use made adaption necessary, these always should be executed in some unobtrusive way, never trying to imitate any 'style'.
Major alterations in order to accommodate the building for modern use should never be made. It would be better to abandon the building and build a new one for the special purpose one had in mind. No limit was set as to what kind of building should be taken care of. Naturally men like Norris and Ruskin did not wish to confine effort to a few splendid old cathedrals. An old barn or a parish house might just as well be worthy of salvation. In fact the Society has taken care of "fixing" and stabilizing many an old thatched cottage for the sake of keeping up the old British countryside.

While British theories and technical methods were internationally recognized and followed abroad, it took Great Britain a long time to organize a system calculated to take care of the heirlooms of the past, so that it would not be too late for any Society or anybody else interested in conservation to act before a house fell to pieces, or even worse, was sold to some collector beyond the boundary of the country for removal to foreign shores. After a few such instances in the twenties, in 1931, an Ancient Monument Act was finally passed which ruled out these abuses and put historical conservation on a basis now common in almost all European countries.

As an exception and as a marked contrast to France and most other countries, churches cannot be put on the classification ("schedule") list. However, certain precautions are being taken by high ecclesiastical authorities so that local church agencies are prevented from doing harm in restoring their church as they please.
Ecclesiastical buildings excepted, any building or structure can be "scheduled" by the Commissioner of Works after a certain procedure has been followed and at any time that it seems necessary to do so. The list of monuments under conservation is increasing by hundreds every year and now comprises many thousands. It is obvious that in order to classify such an enormous number of objects no specific reasons could have been set down beforehand in regard to every possible circumstance. Though such reasons must vary time and again, one general underlying idea always will hold good; i.e., that conservation is necessary for every remnant of the past as long as it can be related to some period of history or sphere of human culture and thus may be of definite value to the present or the future.

While technical structures are not specifically excluded from conservation (a special section of the Society takes care of windmills), no measures are taken to preserve scenic areas or historical sites which include no architectural features. Thus there is no legislation to prevent a private owner from building on the field of Runnymead where Magna Charta was signed or on any other historic site.

This evident gap has been much discussed and it may eventually lead to additional protective legislation. Actually it is bridged by a private institution, the National Trust. This Trust takes care of scenic areas or historic sites as far as it can do so with its restricted means. Though it is a non-profit institution, the National Trust must even pay high death duties for estates bequeathed to it, though they will afterwards
serve for the good of the public. As a rule, the National Trust only takes over estates which are self-sustaining. In emergency cases funds must be raised to take care of objects which are in danger. One of the most recent accessions of the National Trust was Kipling's country seat which came as a gift of his heirs. Though such gifts are frequent, it is obvious that the means of the National Trust are limited and that it is not able to take care of as many objects as it should.

While conservation work in France and Great Britain was being carried out along the lines briefly indicated above, similar struggles for the same principles occurred in all other European countries with the final result that since the beginning of the twentieth century much general agreement has been reached throughout the world. International conventions have furthered this movement and a resolution passed at Athens in 1933 declared the unanimity of all those countries which were represented. It should be added, however, that all discussions and most international interest in conservation work pertains to historical and artistic monuments as indicated before. Two groups of objects worthy of protection are mostly not included: "technical" and "natural" monuments. It is unnecessary to say that the movement to save "nature" and "wildlife" from destruction started in the United States and that Europe followed only rather hesitantly.

It seems that in Europe general attention to this question was only given since about 1910 when the Swiss Scientist Paul Sarrazin at the International Congress of Geologists at Graz pronounced in his speech
that while industrial vandalism had swept the world and had disturbed the national association of living things everywhere, it was high time to provide for the preservation of what was left of the riches of the world. Switzerland and Germany were the first to follow such trends, while others joined later. In Germany there is also a tendency to extend protection not only to documents serving as witnesses to natural history but also towards preserving the natural beauty of a landscape (which need not be "extraordinary") from being destroyed by industrial plants, mines, etc. Legislation expressly provides for the protection of natural beauty. In accordance with this, landscape architects participate in the planning of the new motor roads. In England, as mentioned before, the government does not provide such protection, which if given at all, must be provided privately.

The interest in objects bearing on early technical processes seems to have originated in Germany, where it was specially sponsored by Oscar von Miller, the founder of the technical museum at Munich. It was Miller's idea to collect evidence of early technical procedures in a museum. Later, probably influenced by Scandinavian open-air museums, he thought it would be as important to save technical "monuments" and keep them in their natural surrounding. Consequently, largely through his influence a number of old workshops, cranes, mines, and furnaces were protected by various different agencies, and are now also authorized to be preserved with the aid of government funds. In this connection it is interesting to
point out the great interest which Austria, a country always most progressive in conservation work, took in such matters. In a paper delivered in 1930 at the opening of an exhibition showing early technical objects, the minister of education — one of the foremost European historians — Heinrich von Srblík, used the opportunity to point out that "the chasm between history and technique is to be regarded as a result of specialization. Due to the general current of the development of historical science during the nineteenth century, unity of science has unfortunately been too much neglected." Because of such support, naturally much care was taken to conserve the technical documents which hitherto had been neglected.

While an attempt has been made to point out the factual evidence of conservation work and the reasons which may lead to classification, nothing has been said about the philosophy underlying conservation work. This is a much discussed subject depending on very unstable factors, and when it is applied it leaves very much to personal interpretation and tact for balancing opposed forces. However vague theory may be, an attempt will be made to establish some basic facts, since they may be helpful in illustrating the problem. The idea of historical conservation work could only be conceived at a time when human interest was bent in a retrospective direction as was the case during the beginning of the nineteenth century. In fact only the idea of development then acknowledged as basic to historical science rendered the conservation movement possible. In order to understand the underlying motifs which led to the first conception of conservation work, it must not be forgotten that buildings or any
witnesses of bygone days were recognized as documents by historians and they therefore called them "monuments historiques". The "art historian" had not entered the scene yet and therefore no reasoning from this point of view could take place. Consequently the historian who wished to conserve an object of historical value was interested in having this object as complete as possible, just as he might wish to preserve any written document in a complete state. Hence every effort was made to "complete" a ruin or a cathedral and to eliminate all "faults", that is, abolish all later changes and restore it to its "pure" style. This desire for correctness may have been enhanced by the human tendency to wish to see a building as new and neat as possible. The historian of this early stage also wished to discriminate between facts of major and minor importance, hence the desire to classify objects ("classification") and to restore them only in relation to their importance. The more historical erudition spread during the nineteenth century, the more even minor items were apt to be comprised in the system of conservation, thus making it impossible by and by to build up any "classification" or to eliminate "unimportant" items. Against this kind of conservation work, vastly diffusing and aiming to defy nature and restore as many structures as possible, a reaction eventually grew up among those who, though they were perhaps unscholarly, certainly were aesthetically minded men. They felt that correcting nature by interrupting natural and necessary processes of decay to such an extent as the "restorers" were wont to do, was wrong, and besides useless in the long run. Gradually it was learned that the
cathedrals and chateaux besides their "historical" value, which had been a discovery of the romantics of the time of the young Victor Hugo, also possessed certain values which "old age" lends to an organism. It was felt that while a new construction should give an impression of utmost completeness - like the human being - an old building should not conceal features of wear and tear, which added to its dignity by telling of its age old experience. Force was added to this movement by the fact that while such arguments were perfectly plausible to all classes, "historical" values were more appreciated by a small educated group of people. While undoubtedly the historian destroyed objects immediately by "restoring" them beyond recognition, those valuing "old age features" were bound to face a crisis when one day the object of their admiration would also be beyond recognition in consequence of natural decay. Beside such obvious contradictions, other circumstances complicated the situation. There was no denying the fact that if a monument were still in use another "value" had to be taken care of besides the "historical" and "old age" values. Such was the case when the purpose of a structure was quite as important as anything else. Furthermore, "artistic" values were finally recognized and had also to be considered. The order in which these different "values" came into recognition also explains the order in which the various topics of conservation were taken up. As long as historical points of view were preponderant in conservation work "historical" objects were protected in relation to their importance. When artistic and old age features were evaluated the gamut was not only enlarged but a large part of these historical values were integrated with those of more recent estimation. As a
perfectly logical result of such shifting opinions, "natural" structures received new interpretation making them also acceptable as objects worthy of protection and thus providing for the last missing category of objects to be cared for by conservation work. It is clearly to be seen that these various motives for conservation sometimes are rather conflicting and that one principle may seem to exclude the other. Fortunately it has often proved easier to assure a practical solution than theories seemed to permit. But it always is expedient to consider the whole range of possibilities and necessities before decisions are made.

Among such systems which were set up in order to introduce categories to clarify the situation, two are most interesting. Charles Buls, a Belgian and great expert in city planning wished to divide all "monuments" into "dead" ones (e.g., the Temple of Carnac in Egypt) and those which were "living" (e.g., the Pantheon in Rome). In 1903 this author built up a complete system of procedure when monuments in various states of conservation were to be taken care of. Though Buls takes Viollet le Duc as a "point de depart" he also welds English theories into his system. His deductions show clearly that Viollet le Duc was not wrong and Morris was not right, but that both theories had their definite part in the development of conservation and that modern conception could only use such doctrines when adapted to modern ways of thinking. While Buls preferred to treat the practical side of modern conservation work, the eminent Austrian art historian, Aloys Riegl, in a paper published in the same year as Buls' programmatic pamphlet attempts to disentangle the contemporary
attitudes toward conservation. His main categories of monuments are "intended" (e.g., the Column of Trajan) monuments and those "unintended" (e.g., Pompeii). With these categories in view he deduces his theories, assuming a number of different values somewhat in the way explained above.

These theories were discussed nearly 30 years ago. Since then they have been largely acknowledged and have been tested by practical use. Conservation work has outgrown these initial discussions and has proved to be "workable". Though certain main points of view are accepted everywhere, others remain to be revised according to every new situation which is offered. This necessity of constant adaptation to change makes it impossible to fix certain rules for classifying monuments, and it seems that just this flexibility gives the conservation movement the power and impetus it needs to overcome the multiple obstacles which will be always opposed to it.
Bibliography


Clemen, Paul, Die deutsche Kunst und die Denkmalpflege, Berlin, 1933.

Conservation des monuments d'art et d'archéologie, Paris, 1933.


Holey, Karl, "Der Schutz der technischen Denkmale in Oesterreich," Blätter fuer die Geschichte der Technik, Heft I, p. 25, 1933.


Matschass und Lindner, Technische Kulturdenkmale, Munchen, 1922.


Society for the Preservation of Ancient Buildings, London, Annual Reports

Viollet Le Duc, Dictionnaire raisonné de l'architecture, Tome VIII ("Restauration"), 1866.
Aside from practical endeavors to conserve monuments of national importance, surveys covering this field have always been considered an essential part of such efforts. In fact, it is to be regarded as self-evident that both research and field work must be undertaken before conservation work can be started.

The Schneider Report, made in 1935, included general material based on interviews and questionnaires concerning surveys in various European countries. In view of its composite character, it seems necessary to classify this and some additional material in order to define the types which will be examined in this report with the purpose of discovering what methods have been or might be adopted advantageously in this country. These types may be classified as follows:

1. Guidebooks
2. Handbooks
3. National Surveys:
   a. comprehensive inventories
   b. selected series
4. Special subjects
5. Archives

Unprinted study material arranged in files of offices like that of the French Monuments historiques will not be discussed. Schneider has mentioned some of it; at present it would be impossible to offer more than he was able to do. As it would certainly be interesting to
examine the way study material is gathered and filed in various countries, this should be done, but it would be impossible without sending out questionnaires.

(1) Guidebooks

Until the American Guide Series was started as a Federal Writers' Project, the guide published by Baedeker in 1904 was the only one covering this country which both provided the usual travel indications and included critical cultural and historical information. Nothing is more apt to show the discrepancy between the interest of two generations than a comparison between these books which answered the needs of two epochs. Admittedly, conditions and requirements for both publications were entirely different, but it is worthwhile noticing that Baedeker managed to cover the topic—including even a trip to Mexico—in one volume, not even as bulky as his guide of "Switzerland," so that evidently the author was not at all embarrassed by any lack of space.

Though antiquarians had long given their attention to the "American" development of architecture and various other features, such interest had by no means become general at the time when Baedeker prepared his publication. No comprehensive history of American architecture had yet been written, and was not to be written until the 1920's, when Fiske Kimball's books were to cover the subject. While Baedeker's entry concerning Salem, Massachusetts, is limited to half a page saying nothing whatsoever about the artistic features of the town but devoting attention to the witchcraft craze and mentioning besides Hawthorne a forgotten novelist like Maria S. Cummins, the
American Guide Series guide is able to give 13 pages to the subject and to cover even minor details about the famous architect of the early Federal period, Samuel McIntire. But even a very abbreviated guide in the Baedeker style would today have to mention McIntire and could not omit his Chestnut Street house entirely.

While the time was ripe for just such a guide as was produced by the Federal Writers' Project, the type this project created is rather unique and has no exact parallel in Europe. While the summarizing articles which are to be found in the American Guide Series are more varied and explicit than those similar European guides have to offer, the way they are presented expresses much more personal points of view than would be permitted in any European publication of the kind. If another example of European guides is taken—the series called "What Is Not to be Found in Baedeker"—it will be found that it was decidedly planned to be "entertaining," although the various volumes do contain some of the background missed but not expected in grave publications of the Baedeker type.

Certainly, the more human treatment of the subject matter in the American Guide Series makes interesting reading, while bibliographical references may be used to gather other opinions. It may be a drawback that though interest in local history will certainly be stimulated by the amount of personal details, this also may make it difficult to get a well-balanced general view.

In Europe the Baedeker type still prevails and is represented also by the Blue Guides or Guides Bleus, published in England and France.
All these guides, while they are completely impersonal, contain an enormous wealth of material arranged in a very convenient way, as a result of long experience and continuously revised prints. No points are specially stressed except for those marked with the famous asterisks, the only way Baedeker or his colleagues show a limited amount of emotion.

Though exactly the same in appearance, the contents of the volumes of the Guide d'Italia, published since 1924 by the Touring Club Italiano, are somewhat different in their scope. The idea of this series was to get rid of the foreign guides, which, up to that time, were the only reliable ones in Italy and they naturally appeared in the first years of Fascism.

This undertaking proved to be an enormous success. The new guides were more complete than any others published before, and the art treasures of Italy were treated admirably, all available sources being used. Direct propaganda was omitted, so that the traveller got a guide and handbook dealing only with the subjects about which he wanted to know. The series comprising some thirty to forty volumes, was published quickly and distributed in several millions of copies, also in French and with some copyrights used in German guides. As a part of the Italian propaganda system, the Touring Club has played an important role. As a semi-official undertaking, with only hotels and other business establishments catering to tourists as private members, this club is affiliated with the State Railways by the Ente Nazionale Italiana Turistica (E. N. I. T.), which also publishes a number of books and
surveys. For propaganda in France there is, for example, a collection of *Impressions from Italy* by a number of distinguished Frenchmen, published in 1934.

The French Touring Club has a large membership from all classes, and with their help it tries to aid official efforts in conserving sites, improving roads, and stimulating general interest not only for 'touring,' but also for educational purposes. While its efforts are intended to be for the good of France, no propaganda in the Fascist style is included. At present only a periodical is issued. About 1900, a series of some 40 volumes was published under the title *Sites et monuments*, arranged by departments. These publications are extremely superficial, uncritical, and scarcely more than picture books, useless for any research work. Besides, they are too big to be used while travelling.

Thus, for travelling and reference in all European countries except Italy, the usual guides of the Baedeker type must be referred to. While this is not the place to go into detail about the development of the travel book, it should be explained that besides the travel book, another type has more recently appeared—the so-called handbook. Throughout the 19th century the standard of the traveller's guide was constantly lowered at the same pace with which the distinguished traveller gave way to the ordinary sightseer. While the 18th century cavalier going on his "Grand Tour" used comprehensive and erudite travelling accounts as his guide, these educational trends were neglected by later travellers preferring merely information about hotels and
excursions. The subject matter which had been omitted was taken up, however, by another kind of book which began to be published for the more serious travellers and was written by scholars for scholars. It was quite significant, however, that the usual handbook which supplemented the travelbook was concerned with art and archeology, a subject of ever-growing interest to the public throughout the 19th century.

The Italian Touring Club guide tries to reintegrate this subject into the usual guidebook. One result is that it gets so bulky as to prevent travellers from taking this veritable library on an extended trip. The other more serious result is that the guide is so overloaded with "art" that it may deter people from using it. While it is not meant to compare the American Guide Series with the Italian series, it might be said that the tendency to introduce summarizing articles on a number of stimulating subjects is a good antidote to becoming too specialized (Italian Guides) or formalized (Baedeker). Whatever qualities travelbooks may have, however, conservationists should always keep in close touch with the publishers for the benefit of all parties involved.

(2) Handbooks

The 19th century traveller interested in Italian art used the Cicerone, first published in 1855 by the Swiss scholar, Jacob Burckhardt, as a handbook. This survey, originally only intended as a guide to the enjoyment of painting, represented a very personal appraisal of Renaissance art. Later it was completed by various other authors through more than 30 editions; so that it finally comprised the development of all fine arts and stressed no particular art or epoch.
While the Cicerone clearly represents a handbook for travellers, selecting and omitting the objects of lesser importance, a new type of book was prepared by a German art historian, Georg Dehio, meant to serve for travellers as well as for quick reference. This Handbook of German Monuments of Art was published in pocket size in five volumes between 1906 and 1914, having been in preparation since 1899. Dehio's publication sponsored by the Tag fur Denkmalpflege, a semi-official annual convention of conservators and architects, was chiefly his own work though he was aided by a number of contributions from various co-operators. As far as official large scale national art surveys had been begun, the author was allowed to use these; otherwise he had to depend largely on his own judgment and experience. Every volume covered a region in which localities were placed in alphabetical order. In abbreviated form, architecture and other works of art, chiefly before 1800, were considered. This publication commonly called "Dehio," proved to be most popular and was to be found in the hands of everybody concerned with educational activity in the field of art, as well as in those of travellers and amateurs. After the author's death about 1930, a reprint was necessary. The new edition was planned and carried out on a slightly different basis. Instead of listing localities alphabetically in each region, key towns were selected, which were followed by such places as clustered around them, in the order they followed on the roads radiating from the key center. Short historical summaries printed in italics preceded other information. One man was again responsible for the whole publication, being specially qualified for this task by close
connection with conservation work. Of 40 volumes which have been planned to be published in about ten or fifteen years, two have appeared. This publication is the most recent of its type and deserves close attention as it is born of the best tradition and wide experience. Rather similar publications have been made in Austria and Switzerland. A well-illustrated Spanish publication of similar type lists protected works of art only. Somewhat different and not by any means as well developed is an Italian series enumerating only buildings which have been classified by the Government. Thirty of the expected 70 volumes have been published. They are rather unattractive in their make-up and are not largely used by the public.

The English Office of Works—official agency for conservation work—has prepared a publication in which a selected number of ancient monuments are described and arranged somewhat in the manner of the two aforementioned series.

Administrations in charge of monuments usually find it necessary to publish guides. If these publications are uniform in size and arrangement and published with the view of giving a complete series, they may be regarded as a unit similar to a handbook. Such official series have been published in Germany, Great Britain, Italy, and the United States. It seems important to standardize this kind of literature as much as possible. Booklets, for example, should give the title, name of publisher, and date of publication so that they can be handled properly in libraries. The facility with which publications are mimeographed nowadays without going through the former usual channels of
printer and book publisher makes it easy to neglect these requirements. The result is that libraries find it difficult to catalogue them properly. Thus they are easily lost or remain unused. Though such guides should be written in a style easily understood by the average visitor, they should also contain data a specialist could reasonably look for, such as specific dates and dimensions of buildings, but no lengthy discussions of doubtful problems. Maps or plans and some well-chosen photographs are indispensable as well as a few bibliographical references. As these books are largely distributed to visitors at the various monuments any other than pocket size is undesirable for the reader.

While this type of guidebook is represented in this country by the new booklets of the National Park Service, there is no comprehensive handbook of the "Dehio" type. In view of the fact that comprehensive regional publications probably will not be made and that the historical surveys undertaken by the National Park Service are not designed to fill this gap, it seems that a "Handbook of the Monuments of Art and History" is one of the greatest desiderata. A nucleus for such a development can be seen in the catalogue of the Historic American Buildings Survey collection as well as in the Handbook of American Museums. While the museum handbook will be prepared differently in its next edition, so as to give more information about the contents of the museum, the catalogue of the Historic American Buildings Survey might also give more data about the buildings it has surveyed. Both publications supplemented by the necessary additional information might form the main
bodies on which to build up a "Handbook of the Monuments of Art and History."

(3) National Surveys
   a. comprehensive

A second entirely different group of surveys is represented by large-scale regional studies which have been made in Europe. These contain complete material pertaining to artistic and historical monuments of a region or country as indicated by their titles, which slightly vary, such as:

- art monuments
- monuments of art and antiquities
- architectural and art monuments
- monuments of history and art
- art topography
- inventory of ancient monuments

It will be noticed that the term history is used least, though historical monuments like fortifications or earthworks from Roman times are listed.

Though the idea of conservation as a policy was developed in France more than 100 years ago and centralized administration seemed to invite a comprehensive survey, no French publication has ever been prepared in spite of the fact that the Service des monuments historiques was well equipped for this task. Instead, the development of the regional inventories took place in Austria and Germany. Naturally it followed all those diverging trends which ruled the various phases of conservation work. However, in the same way as international agreement was achieved concerning conservation policy as a whole, general theoretical agreement
has also been reached regarding the need of surveys and the way in which they should be conducted. In spite of this, practice differs greatly. Not only among foreign countries but even among the 26 states of Germany, there were differences in the handling of conservation work and in the way these regional inventories were set up. Many costly experiments had to be made before satisfying results were obtained. Some German States which had begun to publish such surveys as early as in the '70's have since been compelled to republish them after completely revising the scheme.

Up to the advent of the Hitler regime, every German State used to publish its own survey in view of the fact that their administration and laws were completely independent from the Reich, with the single exception of Alsace-Lorraine, which was administered as a kind of colony by the Reich. In Austria the same was the case with the different states of the Dual Monarchy. Since 1932 the pace of these surveys has been much intensified by taking in more personnel and working somewhat like the Works Progress Administration's projects. As far as possible, in regard to some of the very advanced publications, an effort was made to carry them through on a more unified basis.

If one wished to choose an ideal type of regional study, that for Austria (published since 1907), or for the Rhenish Province (since 1897) of Prussia, may perhaps be regarded as such, both having been supervised by outstanding men in conservation work (Austria: Riegl and Dvorak; Rhineland: Clemen).
As to the system according to which these surveys should be set up, conservationists have agreed on certain features which should be indispensable. A survey should be a catalogue rather than a continuous report. This means that the text must be short and concise, though based on all possible evidence. Sources are not quoted entirely but are indicated only. Results should be given instead of comprehensive deductions. The standpoint of the author should be critical and he must try to decide problems rather than open questions. Controversial problems are to be avoided. Though there is no use in trying to hurry any publication, it should be made a point that preparation of publications should not be dragged over too long a time, which means that an adequate number of workers must be appointed. The size of the publication should be handy and an adequate number of illustrations and plans are necessary, though they need not be large and costly. Every text concerning a locality must be preceded by a concise historical introduction; thereafter should follow descriptions of buildings and inventory. Private collections should only be included if there is a probability that they will remain intact or if they pertain to the art of the country. Summarizing articles are necessary concerning important subjects like architecture, crafts, and artists. These will give information regarding the relative value of the objects which have been treated singly. It should be kept in mind that the inventory must be regarded as basic for later publications and that if there is any doubt whether some item is to be included or not, it should be included rather than left out. There is great danger that items not
included may be regarded as worthless and be lost. In Czecho-Slovakia, Holland, Poland, Roumania, Switzerland, and Yugoslavia, similar publications have been made or are in progress. A somewhat belated publication similar to the early and now obsolete types of this group is still in progress in England where, since 1911, the Royal Commission on the Ancient and Historical Monuments and Constructions has been publishing an inventory of the Ancient Monuments. This publication closely follows the List of Protected Monuments set up for official purposes and strangely finds its limitation with the year 1714 (accession of the House of Hanover). No footnotes are given, the compilers refrain from giving anything more than what they saw and reported when the monument was examined. No bibliography is included nor is any literature quoted. The effort to limit themselves to pure statements of facts makes the authors even set up a series of unclassified objects about which available information was lacking. Though the text is limited, the format is most lavish and illustrations are numerous. This waste of effort, in view of the limited scope of the work, is not to be found in any other publication of its kind. Curiously enough the *Victoria History of the Counties of England*, a very comprehensive publication primarily concerned with history, interprets history so broadly that the history of dwelling houses and their architecture constitutes a considerable part of it. This makes it possible to use this work as a source of reference without taking notice of the inventory, while the opposite is impossible.
b. Selected series.

This type of survey is similar in make-up, but different in scope. Inventories of certain types of objects have been published in several countries. The idea sometimes probably was that series concerning other types might follow. Most frequently, churches or palaces were chosen for these purposes. Such series concerning churches are in progress in Belgium, Denmark, France, and Sweden. The Belgian set is published in two slightly differing editions in French and Flemish. Other series are planned so as to complete a series of 50 volumes. In Switzerland a series is being published on castles, and another on domestic architecture, though a general survey is under way at the same time.

In England a series on the great manor houses has been published under the title of English homes, growing out of studies which had been published before in Country Life, thus making this lavish publication possible. The first book publication was badly arranged, the second is much revised, and put into a well-designed system. Although a wealth of material is presented, it is not always done in a scholarly way. Something in the same style was published in France on Chateaux while an octavo publication on the same subject is still in progress.

In Italy there are two official publications, varying slightly in their form. Both, however, are well printed and profusely illustrated, one dealing with old buildings and their inventories, the other describing works of art and collections. Both are arranged geographically, and it is not readily understood why the matter is split up into two publications. A publication of this kind is also brought out in
France which amalgamates the comprehensive with the special survey.  

This is the yearbook of the Congrès archéologique. Since 1834 this semi-official convention of the French Archéological Society (to be compared with the German Tag für Denkmalpflege) gathers every year in a different town in France to discuss current problems concerning conservation. A committee thereafter prepares an illustrated yearbook containing papers which have been read, many of them concerning the locality where the convention took place and also detailed descriptions of the monuments which have been inspected. These very accurately prepared annuals have proved to be excellent, though by no means comprehensive sources covering all the enormous artistic heritage of the country.

As for the United States, one of the most remarkable surveys of the aforementioned type to have been published anywhere, is the one on Manhattan Island, by J. Phelps Stokes. Otherwise, there are certain series in which country seats, national shrines, and other types of sites and structures have been considered. A comprehensive national survey covering a whole region or state has not yet been undertaken.

While the aforementioned surveys have been carried out on national or regional scale or were concerned with one type of object, the problem of making an inventory of historical and artistic objects has been tackled from a new and entirely different angle in this country. Surveys are made here by studying certain historical problems and relating them to existing physical remains. There is no doubt that the necessity of surveying a whole continent with a number of complex problems make it necessary to develop new devices.
What should be avoided, however, is to keep these reports in archives until the whole field has been covered. Even though they may be available to the public, archives will always remain a kind of sanctum for adepts only. This is all the more the case in view of the great distances in this country, which make it difficult to use centralized institutions. Furthermore, publications, even though they are merely preliminary studies, are the best way to interest the public and stimulate discussion so that improvements can be made in later and more definitive editions.

(4) Special Subjects

Differing in its purpose from all aforementioned surveys, a German organization, the Deutscher Verein für Kunstwissenschaft (D. V. F. G.), was founded in 1911 to prepare a publication of all German works of art critically arranged by subject matter. This same vast idea had once before been propagated by the Nuremberg Germanische National Museum in the 1850's without any success. This time a definite success seems equally imperiled though several series have been published by some of the 25 sections which are represented by commissions. Though the organization has been working for over 29 years, efforts are still so much scattered that the framework of the giant undertaking is scarcely to be seen. This does not mean, however, that excellent and indispensable work has not been done.

All publications mentioned heretofore are chiefly concerned with art though it will be difficult to decide how much a castle or cathedral is an object to be claimed by history or history of art. There is one group
of publications which, though concerned with works which may be claimed for the realm of art, are here considered for what they are worth as historical or cultural documents. This group of publications is rather roughly gathered under the internationally used catchword of "Iconography." The choice of this word is rather unfortunate as art historians are already using this term in other senses. To avoid misinterpretation, the term "Bildkunde" is used in Germany, which means something like "knowledge of pictorial representations." The task of this auxiliary science is to show in what way pictorial sources might be used for interpretation of history as well as what kind of illustrations ought to be used. Though such sources have long been used to make the life of bygone days better known, criteria for their best interpretation has not been worked out satisfactorily, nor has the material itself been gathered in a way to make the best use of it. In 1926 a subcommittee of the International Committee of Historical Science, presided over by Dr. Waldo G. Leland, was appointed to act as a Commission d'Iconographie to create working units in most of the countries taking part in the International Committee.

While historians in the United States as a group have thus far done little to coordinate efforts in the field of iconography, some individuals or institutions have been active and successful. It is impossible to enumerate the publications on the subject by Theodor Bolton, L. Dresser, The Essex Institute, and H. W. Foote, however the WPA publication entitled American Portraits Found in Massachusetts and edited by Sylvie Schlafer,
should be mentioned. The author is now working on a similar compilation concerning New York. In this connection, the American Library Association's Portrait Catalogue should be mentioned also. Further, though not a survey in itself but an important historical publication using illustrative material as evidence, Shurtleff's book, The Log Cabin Myth, might be mentioned as an example of the use which can be made of iconographical material.

Reverting to the work of the Commission d' Iconographie, it should be said that it only undertook to find out about methods of procedure, terminology, coordination, and similar matters, whereas definite research work was to be done by every nation itself. In this way, valuable work was carried out by France in attempting to classify the print collection at the Louvre in a way which might be helpful to historical research. The new catalogue of historical pictures in the Museum at the Palace of Versailles was also made according to these newly established requirements. As these principles have been applied to various projects in different countries it is impossible to mention all the publications dealing with them. In Belgium, Denmark, Germany, Italy, the Netherlands, and Sweden, activity was especially extensive. In Germany it centered around the work of the Institute for Cultural and Universal History at the University of Leipzig, which published a series of publications concerning the Development of Human Likeness in Japan, China, Byzantium, Germany, and other countries. The importance of collecting contemporary historical material before it had disappeared as a result of neglect was also recognized by the central Commission and efforts were made to create film archives concerning historical events of the day. All these various
features show the high significance of iconographical research which has not yet been developed as much as it should be.

Pictorial material of an entirely different type has been made use of by making aerial photographs available for archaeological investigation. While it seems that systematical aerial surveys of this kind were started in Great Britain without having much consequence, it is certain that such aid may be most valuable for archeology. The historical staff at Saratoga Battlefield is employing aerial photographs in its work and the usefulness of this means of research in connection with certain phases of work on national parks should be revealed by the results obtained there.

(5) Archives

Certain collections of archives must be considered in any summary of surveys, as they not only contain material valuable for such surveys but in many cases indicate potential subjects for survey. Nobody, for example, seeking material on French architecture can dispense with making research at the archives of the Monuments Historiques and the Service photographique de documentation des monuments historiques. In these places all material which has been gathered on objects under governmental jurisdiction is to be found. The same is the case in England, where material relating to architecture can be obtained from the Royal Commission on Ancient Monuments and the Office of Works, which is in charge of actual conservation work. Similar facilities are open to interested persons in all countries where conservation work has been undertaken. Some official bureaus, private societies, or individuals have set up agencies where
catalogues, collections of documents, photographs, and related material can be studied and photostated. Thus, in Paris, the Service photographique de documentation des monuments historiques was established to provide material on French art, and the same service is available in Rome at the official agency called Luce. In Prussia, the Government Photo Service (Staatliche Bildstelle) has served since 1885 as a center to provide photographs of art monuments, not only in Germany, but also in various other countries. A special procedure called Photogrammetrie for taking photographs permits the making of exactly measured elevations from photographic views known as Messbilder. Every summer extended field trips are made to take photographs of monuments and sites in a certain part of the country. This is done in coordination with all those agencies which are interested in getting photographic material. These field trips have been in progress for decades, so that areas which have been photographed long ago will eventually be rephotographed.

Another agency which originated from a private enterprise has its seat at the Institute of Fine Arts of the University of Marburg. Photographers (mostly specially trained students in higher semesters) are sent over Europe to take photographs of art objects. They will go into a collection and photograph every picture, or else take photographs of art objects covering a whole town. A considerable number of famous private plate collections have also been secured, so that more than 100,000 plates are now available. Also, at the University of Marburg is located the Central Catalogue indicating the location of photographs of German works of
art. Logically, this enterprise should be a part of the activity of the Deutsche Verein für Kunstwissenschaft, which, as stated before, plans to publish all German works of art. However, it is not. It is evident that this catalogue ought to be most useful for research on iconographical material. A somewhat similar catalogue giving information on Dutch art was set up at the Hague as the Rijks bureau voor documentatie, based primarily on the stupendous collections of the Dutch art historian Hofstede de Groot.

A similar private English institution, though so liberally made available to visitors that it is practically public (but in no way subsidized by the state), is the collection of Sir Robert Witt in London, comprising photographs of paintings. It is unique in its completeness and must be used by every scholar who is doing research on special problems in painting. This collection is mentioned as a type covering one field, allowing a scholar who uses it to get acquainted with as much special material as possible. However limited it is in its scope, it represents a survey in a special field. The same applies to the Index of Christian Iconography located at the Institute of Advanced Study at Princeton. This index has nothing to do with the aforementioned studies in historical iconography. It is rather concerned with the study of representations of figures, symbols, and allegories pertaining to Christian faith from various points of view.

Other well-known archives active in this country should be mentioned here: the Index of American Design covering the field of American arts and crafts and the Historic American Buildings Survey, collecting materials on early American architecture.
While the aforementioned and several other archives and committees are collecting photograpical material, there is no important central organization collecting photographs of artistic and historical objects in the way the large European agencies are doing. There is no doubt that this is one of the most urgent problems in view of the difficulties in obtaining proper material for educational purposes and research. Private commercial enterprises are more than inadequate to fulfill both tasks. For mere educational purposes some initiative has been taken by members of the College Art Association, among them the Cooperative Colored Lantern Slide Project. The work at Princeton should be mentioned and may prove useful for its limited purposes. Though for New York, the loan collections of the Metropolitan Museum have been very helpful as far as slides are concerned, there is no place where photographs for research work can be secured. For Massachusetts, the documentary collections of the Essex Institute at Salem have proved to be most valuable. Universities like Harvard, New York University, Princeton, and others are also setting up large slide collections. The most promising nucleus for any centralized photo-archives seems to be given by the two projects whose material will be deposited at the Library of Congress. This is again the noteworthy Index of American Design and the Historic American Buildings Survey. Both supplement each other admirably and if they can eventually be further supplemented by sections concerning painting, sculpture, historical objects, portraits, and other significant subjects, it will be possible to establish archives which will be second to none.
Bibliography


7. The "Tag fur Denkmalpflege" has met every year since 1900. The proceedings of the first 12 years have been published by A. von Oechelhauser, *Denkmalspflege*, Leipzig, 1910-13, three volumes. Thereafter, the proceedings were published under the title *Tagungsberichte des Tags fur Denkmalpflege*, annually by different publishers.


14. Publications concerning palaces and gardens, etc., in Prussia and Bavaria. (Some thirty volumes) By the respective "Verwaltung der Schlosser und Gaerten," Berlin and Munich.


17. All these inventories are listed in: Dahlmann-Waitz, Quellenkunde zur deutschen Geschichte, 9th ed., 1931.

18. There are various inventories concerning Austria and other countries formerly parts of the monarchy. The central part of Austria is inventoried in: Oesterreichische Kunstdtopographie, vol. 1, published in 1907 (in progress). Official Publication.


Rumania: Art Inventory of Rumania, published by Tzigara-Samurcas in 1939. (No specific bibliographical indication obtainable.)


Yugoslavia: Ivekovic, Bau und Kunstdenkmaler in Dalmatien, Wien, 1927, six volumes.


30. Deutscher Verein fur Kunstwissenschaft (DVFK) publishes:
   2. *Zeitschrift des DVFK*, with articles and reports on publications, since 1934.
   3. *Schrifttum deutscher Kunst*, bibliography of articles and books on German art since 1934.


34. Veröffentlichungen des Forschungsinstitutes für Kultur und Universalgeschichte, Leipzig, since 1929.

35. The Ordnance Survey of Great Britain published:

The Economic History Society published:

Private publication:
III. Protection of Monuments in Wartime

The most comprehensive publication in regard to protection of historic buildings and works of art in time of war is the Manual published by the International Museum Office in Paris at the end of 1939. This manual contains a list of measures which should be taken in wartime in order to protect works of art and museums. They are based on practical experience during the war in Spain. Among the more important other publications, a series of official booklets should be mentioned, published by British authorities, covering more general wartime precautions. All these books were published before the German attack was launched against the Lowlands with all of its consequences. Experiences gathered during this period of the war are certain to change opinion about a number of points, and perhaps even about some fundamentals set up in the manual. But it probably will take some time until data will be made available for examination on which to base newly devised measures.

In regard to protection, two groups of objects should be taken into consideration: Movable (collections) and immovable (buildings, monuments, etc.) objects. Though for movable objects, complete evacuation from imperiled areas seems to be the ideal solution, this is not the case, as certain drawbacks will prove. Costs are prohibitive and means of transportation would be difficult to obtain during a period when all actions are concentrated on the more important mobilizing maneuvers. Military needs will always prevail and may make such measures requiring help from outside the museum impossible of execution. Besides, it should also be considered that it is unwise to
deprive the population of all means of entertainment by closing up all museums during a period when relaxation is much needed and only very little can be offered. Museums, during such a period, will often have the additional burden of arousing the interest of the public for certain topics, by presenting special exhibitions, for which purpose they may need some of their show material. Therefore, the best solution has been found in making selective lists of objects in an order related to their value. Though irreplaceable objects will figure first, this hierarchy should, by no means, be established in an order based solely on material value. It may well be that "pets" of the great public may be included in "first" lists, which are followed by "second" lists.

With reference to National Park Service museums, the commercial value of objects placed here will generally not be considered so high as to make any complete evacuation necessary. On the other hand, there will be a considerable amount of specific material regarded as "irreplaceable," like excavations at Jamestown or Ocmulgee. In such cases, the isolated situation of the parks may render it unnecessary to plan any evacuation on a large scale. Naturally, exceptions may occur, as, for example, in the case of Yorktown, where the proximity of the naval depots makes the situation especially dangerous for the museum. But, taking this museum into consideration, only very few pieces require special care, so far as their value is concerned. These might be the objects recovered from the British naval ships sunk off the coast. Such objects could be brought to some shelter nearby, or some cellars, properly equipped, might be prepared. In other cases, as, for example, the Washington portrait at
Morristown, if there is no possibility of sheltering it properly in the museum, a vault in an office nearby could be sought.

It should always be kept in mind that in addition to the drawbacks hereinbefore mentioned, there is always a certain amount of danger involved for objects which are taken out of safekeeping in a museum. The shelter provided may not prove as good as had been anticipated, there would be little possibility of taking care of such objects which had been stored away, the air conditioning would be different, and moisture and dampness would add further perils. In fact, it might happen that, as with a great fire when objects which have been saved from the flames are destroyed by the water, evacuated objects would be exposed to greater risks than those left in their original place.

A new fact to be taken into consideration is the uncertainty of modern warfare. While some danger spots will not be contemplated as refuges, as, for example, nearby rail junctions and big plants, it may otherwise be very uncertain where the war will take place. Owing to the use of mechanized units, backwoods villages may suddenly prove to be the center of warfare, as was the case in Norway and also in France. Finally, it should be considered that while financial means to evacuate collections are easily to be had before hostilities begin, it has always been difficult to restore things to their proper use, even in a victorious country. In such cases, so many more urgent needs have to be taken care of that "cultural" ones are those neglected for as long as possible.
Taking all of these matters into consideration, there seems to be justification for the National Park Service museums not to prepare evacuation on a large scale, but rather to think of the safekeeping of certain objects. Necessary precautions, such as having packing material at hand, are obvious. Such packing material does not differ greatly from such as is used for ordinary purposes, and there seems to be no need to enter into details here as very detailed measures would have to be worked out anyway for every museum concerned, according to its own special needs.

In preparing such material as cases, sandbags, scaffolding, or storage or shelter space, a certain difficulty should be kept in mind. In fighting fire, it is, as a rule, necessary to prevent the influx of fresh air or air currents, and it is also necessary to provide for smoke screens which cut off smoke as much as possible. Contrary to these measures, it is also necessary to provide for outlets for air in case of explosions or even nearby detonations, in order to prevent damage by air pressure. Again opposed to such measures, it is necessary to protect shelters against poisoned gas. Some kind of air conditioning or heating may be desirable in certain cases to avoid moisture which will be pernicious to paintings. The more complicated such preparations get, the more they will be sure not to work in case of emergency. Precautionary measures are so contradictory that it is hardly possible to satisfy all of them at one time. So it will be most instructive to learn how many of those shelters containing art goods which were really bombed severely survived undamaged.
Before going into the various problems concerning the protection of buildings of historical value, it ought to be considered what different kinds of bombs might cause damage. For protection against explosive bombs between 10-1000 kilograms it is necessary to build walls in various strengths according to the material used:

<table>
<thead>
<tr>
<th>Kilogram</th>
<th>10</th>
<th>50</th>
<th>100</th>
<th>300</th>
<th>1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete reinforced</td>
<td>25</td>
<td>70</td>
<td>1,10</td>
<td>1,40</td>
<td>2,00</td>
</tr>
<tr>
<td>Concrete (strength)</td>
<td>40</td>
<td>1,00</td>
<td>1,70</td>
<td>2,10</td>
<td>3,00</td>
</tr>
<tr>
<td>Bricks of walls in</td>
<td>75</td>
<td>1,50</td>
<td>2,50</td>
<td>4,00</td>
<td>6,00</td>
</tr>
<tr>
<td>Soil (CM. and M.)</td>
<td>3,00</td>
<td>5,00</td>
<td>8,00</td>
<td>12,00</td>
<td>20,00</td>
</tr>
</tbody>
</table>

Naturally, it remains to be seen whether experience during the war proves these indications to be still correct. Furthermore, protection must be sought against nearby explosions and pressures, which may be done by piling up sandbags.

Besides explosive bombs, incendiary bombs must be expected. The best preventive measure is to keep a large amount of sand, which must be placed according to imminent dangers. It will probably not be possible to cover a whole garret with sand beforehand, owing to its large weight. Water has the quality of quickening the processes of combustion of incendiary bombs, and therefore may or may not be used in fighting them, depending on what seems desirable in the special case. A most effective means to protect woodwork is to enclose it in an airtight coating of plaster or the like in order to keep under control the highly inflammable gases which will escape through the wood. In cases where it will be possible to protect wood in this way, wood will be more satisfactory for roof structures than iron. It was reported that the whole wooden structure of the roof of the Chateau de Versailles had been coated. This means
an operation of very considerable dimensions, as the posts and beams represent a veritable jungle of complicated structures.

As to the structures of the National Park Service, they, as a rule, offer every facility of easy access in case of fire, but as they often are far away from larger cities equipped with fire brigades, there will be some difficulty in fighting fires in emergency cases. Small museums are especially vulnerable to damage as they have no upper floors, and skylights give no protection. Nevertheless, the usual protection must be taken to insure measures against the consequences of destruction of water, gas, and electricity currents. Walls, windows, and floors must be protected by sandbags, sand, impregnation of wood, water hoses, and chemical extinguishers. In case no shelters are available in the museum itself, such must be prepared in the neighborhood. Such shelters may be needed for various purposes and can be devised in a great many different ways.

The measures the National Park Service might take in protecting historical houses do not vary essentially from those which must be taken for museums. Small structures or monuments might be completely covered by sandbags and suitable scaffoldings.

Before the war broke out, the International Office of Museums had suggested that all powers might send deputies to a convention at which a general agreement concerning protection of works of art might be reached. No such agreement, however, was ever realized. Instead, those powers engaged in war pledged themselves to attack only military objects.
That such pledges or any agreement which would have been realized are of small practical value may be proved by the fact that as far as has been made known, considerable damage has been done to objects which decidedly were not military objects, as, for example, the library of Louvain or the cathedrals of Rouen, Toul, and St. Omer. Though it was reported that the German army did everything it could to save the objects after they had been exposed to severe fire, it is obvious that when major military issues are at stake, little or no care will be taken to save "cultural objects."

The Office of Museums also suggested that shelters containing "cultural objects" be made, with a sign which should be respected as the red cross is. It seems very doubtful if such a precaution would serve its purpose, as it has been seen that even the sight of the red cross has frequently not been respected in recent wars. Consequently, every power concerned in this war concealed such hiding places as were sought out for art treasures.

In order to determine what kind of protection would be needed in the National parks, it might be recommended that a commission be formed, on which historians, architects, museum-, fire-, and military-experts would serve. A questionnaire might be worked out to be sent to the field to determine the various problems involved. Thereafter, measures which should be taken might be ascertained.

Additional Report

This report was made early in 1940 when air raids in Great Britain and Germany had not yet proved their devastating effects. While up to
the early phase of war, experience concerning protection and destruction of works of art could merely be based on theory, with a very limited amount of evidence gathered in Spain, a number of facts relating to recent events have now been made known by newspaper reports. Nevertheless, the information being scanty and unreliable, as yet even experts have not been able to realize the full extent of damage which has been done by the bombing of cities.

The military expert of *The New York Times*, Hanson W. Baldwin, stated (Times, August 30, 1940) that the United States has experimented with 4,000 pound bombs, and that Germany was reported to have manufactured 2,000 kilo bombs, although until now only 1,000 kilo bombs have been used. To get an idea of the effect of bombs of this type, it may be sufficient to mention that a 1,000 kilo bomb can destroy an entire factory; only against fortifications will 2,000 kilo bombs, or in rare cases, even heavier ones, be used. The most common ones used for cities now seems to be 100-200 kilo bombs of the high explosive contact type, quite often those with delayed action fuses. Time bombs were reported to have been used when St. Paul's Cathedral and Buckingham Palace were hit.

Other types are armor-piercing or semi-armor-piercing bombs with casings varying in solidity. A 500-pound semi-armor-piercing bomb requires 4.50 meter (one meter equals 0.9144 yards) of reinforced concrete, or 18 meters of soil to ward off its penetrating force. Naturally it would be necessary to secure protection against pressures caused by those explosions which occur nearby. For general destruction purposes in cities, it seems that it is not the most heavy type of bomb which is
being used. This is corroborated by the fact that subway shelters, which, in Berlin, are not very deep, have apparently been sufficient to offer protection.

Very wide use is being made of incendiary bombs, of which the most feared type is the thermite bomb, of the size of hand grenades. When they strike an object they undergo a chemical reaction which generates heat from 1,500 to 2,000 degrees, while, at the same time, sparks and flames will develop. If these missiles hit paved streets or soil they will burn out without damage; otherwise they will cause an immediate fire unless they are put out very quickly. Several reports have proved that when quick action was taken and somebody seized the incendiary quickly and put it in a place where it could do no harm, damage was averted.

An unforeseen effect was reported when century-old walls of cob, a mixture of mud and straw similar to the adobe constructions in the American Southwest, withstood very heavy blasts. It was said that the ceilings fell and windows were shattered but that the three-foot thick cob walls showed scarcely any crack.

Concerning protection, it has been made clear that London museums were completely evacuated during the early phases of the war. Later development of events has proved that these measures were highly justified, as direct hits have been made on London museum buildings. What damage can happen if this evacuation is not done with great care and in due time was seen in an attached report from Belgium which tells of the way valuable paintings were injured on their way to safety. Another
report concerning care which has been taken to protect some Edison relics from destruction is attached also.

While this additional material has been picked up quite haphazardly, as occasion allowed, it proves sufficiently that protective measures are most necessary in preparing defense. It also shows that the principles set up in the advisory instructions of the Office International des Musées still hold good in general, though, of course, much information will be gained in day-by-day study of events in Europe.

Bibliography


Kuhn, Karl F., Fliegerschutz fur Kunst und Kulturdenkmaler, Brünn, 1939.


Protection internationale des monuments historiques et des œuvres d'art en temps de guerre, Office des musées, Paris, 1939.

TWO BELGIAN PAINTINGS RUINED BY NEGLECT

ANTWERP, Belgium, Oct. 6 (via Berlin)—Van Dyck's "Crucifixion" and Caspar de Crayer's "Annunciation", which formerly hung in the Cathedral of Termonde are undergoing restoration in the Antwerp Museum after spending more than three months in a bar in a village near Saint-Omer, France. Both pictures had been exposed to rain and dirt and their complete restoration is doubtful.

They were removed from the Termonde Cathedral last May shortly after the start of the German offensive in the West. They were to have been taken to Ghent to be put in the cellar of the cathedral there. But they never reached Ghent because the moving van that carried them also carried twenty-three refugees, relatives and employees of the Termonde Mayor who had other ideas.

They headed the truck toward Courtrai, whence they planned to flee to Northern France. The pictures were rolled and placed on top of the truck because the refugees and their baggage took up all the available inside room. It rained all the way to Saint-Omer.

In a village near Saint-Omer the pictures were put in a barn for temporary storage. In Saint-Omer the refugees were surprised by German troops and in the haste of departure no one remembered the two valuable pictures.

The pictures stayed in the barn until recently when an expedition was sent to find them. They had lost their color. More than a foot of the canvases was badly cracked and completely softened by dampness. The pictures had been regarded as among the most valuable art possessions of Belgium.
BOMB PROTECTION FOR EDISON RELICS

The New York Times. Sept. 1 - A bombproof structure to house "the most precious relics" of the late Thomas A. Edison will be built near his library at the Edison plant here.

Officials of the company and the architect, W. Orrin Bartlett of Bloomfield, N. J., studied designs of forty types of European bomb shelters.

The building will be ventilated by a special air-conditioning system. It will contain sanitary facilities, showers and other conveniences. Entrance to the basement will be by a ramp. The public will be barred and only trusted employees and watchmen are to be permitted to enter.

Officials of the company said they had no desire to start an "invasion scare." Since Mr. Edison's death, it was explained, it had been planned to erect a durable, theft-proof structure which would withstand the "vicissitudes of time" and "acts of God."

The structure will have two stories, the second will house a memorial exhibit to Mr. Edison's work and inventions. Bombproofing features will be confined to the basement, which will contain models of Mr. Edison's most famous inventions, his records and personal notebooks. The latter will be kept in a 10 by 10 foot vault with 6 feet-thick-walls of concrete, reinforced with steel I-beams. The door to the vault will be of foot-thick steel.

The structure will be 90 by 40 feet and will go down 13 feet into the ground, with the roof of the basement being about two feet above the ground. Walls will be 4 feet thick and the basement room 3 feet thick. The basement is expected to cost about $55,000.

The outbreak of war in Europe presented another eventuality, resulting in amplification of the repository's protective features.
IV. Open Air Museums and Folk Art Centers.

The conception of the folk art center in conjunction with the open-air museum was born in Scandinavia. Arthur Hazelius, the Swedish scholar, inaugurated the first such institutions widely to be known at Stockholm in 1873 and at Skansen in 1891, after he had been studying the problem since the 50's. His idea struck root in the deep interest which the Scandinavian countries had taken in ethnographical problems since the early years of the 19th century. As a matter of fact the first ethnographical museum built upon modern lines had been established in Copenhagen in 1841.

It was fortunate that when scholars set out to explore the ancient culture of the Scandinavian area, traditional ways of living and customs had not yet declined in more remote parts of the country. It was a decisive moment, for the machine age already had begun to threaten the continuance of obsolete trends in those parts of the country which were more open to "modern" civilization. So it happened that when Hazelius began reconnoitering he was richly rewarded in his effort to save what he could for his museum. That was not his only purpose, however, because he also tried to foster everything that was fit to survive by urging people to adapt their old customs to new ways of life in changed circumstances. The salient point was not the growth of his collections but rather the encouragement of the interest of the people in the regeneration of folk culture.
Such facts must be kept in mind in order to answer the question why this movement predominantly carried weight in Scandinavia and took considerable time to gain any footing in other parts of Europe. In fact it may be said safely that though many folk art collections and a few open air museums have been started in various countries of Europe, such centers have never served as rallying points for a real movement to which the whole country, including all classes of society, was devoted. As conditions in other countries of Europe were different they brought forth some other development. Romantic ideas born at the time of the French revolution, and national ambition thriving after the uprooting of the Napoleonic wars, worked up imagination to see the past only in the glory of the magnificent time of medieval chivalry. Neglecting peasant life, civil toil and folk ways, simple and unromantic as they seemed, the remainders of a past dreamt to be beautiful and heroic were gathered. Thus "national" collections were started, differing from those which princes formerly had assembled for entertainment.

The Cluny Museum at Paris and the Germanic National Museum at Nuremberg represented such collections. "National" interest, once aroused, was active in this direction, and as the 19th century progressed, innumerable centers of historical interest, called "historical" societies, were created. In German-speaking countries this movement finally led to the more recent creation of the Heimatmuseum (city or regional museum). Though undoubtedly this Heimatmuseum has its roots in the historical museum, the Scandinavian museums have influenced this type, at least so far as to make
it conscious of the more modest walks of the past, bringing study of former ways of life of the lower or rural classes. So far the Heimatmuseum is following the same line as the Scandinavian museum. Yet, one Scandinavian activity—the difficult task of carrying on old traditions and adapting them to modern use—has never been a German function. It should be mentioned, however, that such activity has been recognized and taken over in part by schools teaching applied art even though they have no connection with any kind of museum.

Regarding Scandinavia once more, it may be stated that at the very moment when interest was aroused in folk art, the country was ready to respond. Unbroken traditions furnished a wealth of cultural features. Hazelius made rapid progress in realizing his hopes and soon was followed by colleagues in his own country and in Norway and Denmark.

As a result, folk art centers were established in all three capitals, each one of which began serving as a focus of the national movement. At Stockholm the Nordic Museum, founded 1873, formed the nucleus. The open-air branch at Skansen (on the outskirts of Stockholm) followed in 1891. The Nordic Museum comprises collections relating to rural life, burghers ("upper classes"), craftsmen, folklore, and social life. Covering the whole country there are collections of photographs and archives for documentation of architecture, portraits, patterns of textiles, pottery and pewter. Such evidence, which may be compared with the Index of American Design, is frequently used in various publications appealing to all classes of the population.
At Skansen characteristic buildings, (farms, barns, dairies, a church, a manor house, workshops, etc.) have been put up in an area covering some 50 acres. Originally these buildings were placed in a pleasing landscape without the idea of arranging the site to simulate any original setting, whereas in recent years there has been an effort to make their surroundings more natural.

Craftsmen are busy in the workshops as glassblowers, smiths, pewterers, printers, bookbinders, tanners, combmakers and watchmakers. All of them, guards and girls attending in restaurants, wear national costumes of great variety. The church is consecrated and used, service is held, and often weddings are celebrated, everybody dressing in national costumes, which for such occasions may be more elaborate than usual. Frequently folk dances are produced with musicians playing old instruments and coming from all parts of the country. Such a parade is by no means a fancy dress ball, because these costumes are worn at home also and the oldfashioned costume, where the dancer gives his lady quite a flourishing swing, is danced by society members on festive occasions celebrated at the most elaborate town hall. Statements have been made that Skansen wears some kind of "make up", but they are not justified. There is nothing of a country fair atmosphere. It may be that some of the young Stockholmers going there have never before seen a woman working at a loom, but possibly they have never seen a cornfield either. The point is that what is done at Skansen is not artificial but real. Old customs and crafts come to life again and are appreciated after they have been snubbed and outmoded.
Next to Stockholm and Skansen the museum at Lund in South Sweden, opened in 1893, is most important. This excellent collection was built up by Carlin personally during a period of more than 40 years so that it exhibits considerable differences when compared with the museums already mentioned. All these institutions are operated privately, though occasionally receiving help from the government; but they must charge fees and, at Skansen, must guard against financial loss.

Besides these large collections there are something like 300 museums varying in size but similar in general character. It should be noted that many have been founded and maintained by committees of farmers. Nothing but pure love for their country and its traditions prepared them for such a task. Some of the museums will have to be abandoned occasionally, perhaps, for lack of sufficient support; but others will thrive because they are carried on by the interest of the home folk who like to gather round these civic centers.

Here is where the second of Hazelius' great efforts should be mentioned. He realized that it would not be worthwhile just to collect museum objects and put them on display. To keep up tradition beyond the current generation, care had to be taken to provide new impetus for old folk ways. So he set forth to gather material which would be effective in promoting arts and crafts where practice had been weakened or had ceased altogether. These efforts were taken up later by the Hemslojd, an organization fostering home craft. Here again all classes of society
worked together with marvelous success. Weaving schools were set up and literature was printed which not only brought knowledge of century-old patterns, but also—and this was essential—developed them logically without allowing cheap and vulgar effects to creep in. The museum always constitutes the center for such activity, although it often is little more than a fine old farm house which has been set aside by the community. Beyond the great civic value of such a rallying point, the activity achieved national importance through the high standard of its products. Swedish output in these fields has ranked high for years in international exhibitions. This is not due to a transient fashion; it is the consequence of permanent and steadfast work toward a national goal.

Oslo is the home of the Norwegian Folkemuseum, established in 1894 on the outskirts of the peninsual of Bygdø. Bygdø is a park like Skansen, one section containing the open-air museum, another a natural setting of collected houses best compared with a habitat group. In accordance with the character of Norway itself, the variety of displays is smaller than in Sweden and sparser population has indicated fewer regional museums. Rather important ones are to be found, however, in Bergen and Trondheim. The one which can be compared best with Skansen is at Maihaugen, near Lillehammer. It owes its existence to the private efforts of an industrialist who opened his collections to the public. Besides farm houses and barns, workshops are set up in which workers are active in summer. There, as in Trondheim, dairies, sheepraising, and other rural enterprises flourish. They are operated jointly by the museum and farmers who let their cows be milked by girls in national
costumes, while the wool of their sheep is used for handwoven products. Similar to the Swedish Hemslöjd movement, the Husflid is operated to advance home crafts.

The Danish Folk Museum was founded in 1879 by Bernard Olsen and opened to the public in 1885; the open-air branch at Lyngby dates from 1901. Olsen, competing ably with Hazelius, was specially successful in collecting outstanding examples of farm and cottage buildings. He was the first to set up period rooms, taken from farm homes as early as 1879.

Among the smaller museums of Denmark, one represents a unique type in Scandinavia. It is the "old town museum" established at Aarhus in 1909. A celebration called for an exhibition, and a group of fine old buildings was gathered in a setting representing an old town. After the event a permanent museum was made of the display. It was so successful that the example has been followed in the more recent settings at Bygdö and Skansen. Workshops and similar features are of the same type described above although they are not shown in operation.

In the main, trends and conditions in Europe have not been conducive to the development of such movements as the Swedish open-air museum or the Hemslöjd. Most countries, however, have developed a few folk art and open-air museums, as at Koenigsberg, Germany, and Arnhem, Holland. Voices have been raised in Great Britain since 1903 for establishment of institutions similar to those in Scandinavia. Beginnings have been made in Cardiff, Hull, and other localities, but nothing has been done on a large scale.
A Folk Art Center was founded in New York in 1928. It has nationwide representatives and maintains contact with similar institutions abroad. Although it possesses no considerable permanent collection, it has held exhibitions at the Fifth Avenue home where a library is at hand and information is available. Dearborn Village, the creation of Henry Ford, should be mentioned here; and related to the subject is the Williamsburg restoration which is gaining nationwide importance with every year of progress and well deserved popularity.

Smaller American enterprises for preserving and promulgating local traditions are the Pilgrim Village at Salem, Massachusetts, and Lincoln Log Cabin and New Salem State Parks, Illinois. Luther College, of Decorah, Iowa, developed a group of cabins in the style of early Norwegian settlements. Henry C. Mercer's important collections of tools and everyday cultural objects is preserved by the Bucks County Historical Society at Doylestown, Pennsylvania, as a center for research in old crafts and folk culture.

It is impossible to mention all the scattered efforts being made by various agencies to revive interest in folk arts and crafts, but some of the most effective should be pointed out. There is a growing tendency to unite craftsmen living in distant parts of the country into "guilds" which serve as liaison between the public and the workman. The greatest success so far has been made in the South, by the Southern Highlands Handicraft Guild, and in New Hampshire, by the League of New Hampshire Arts and Crafts. Such developments have been encouraged by Allan H. Eaton's fascinating studies of crafts of the Southern mountains. The
National Park Service naturally is interested in these problems and has sought to be a useful promoter in the field.

Finally, one of the most remarkable Work Projects Administration undertakings should be mentioned: the Index of American Design. This countrywide endeavor, carried out with the greatest care and skill, has an older companion in the collection of textile patterns, already described, which was made in Sweden for use of home craft institutions. In her instructive book, Swedish Home Crafts (published in English at Stockholm, 1939), the Swedish author Sterner emphasized the importance this guidance once had in educating Swedish weavers. The Index appears even more apt to serve the same purpose, because it comprises such a wealth of material and covers such a large field of subjects. As a link between traditions which have passed away and developments necessitated by industrial progress, it should serve as a welcome tool.
Bibliography

Denmark


France


Germany


Great Britain


Holland


Italy


Norway


Scandinavia


Sweden


A. Lindblom, En bok om Skansen, Stockholm, 1933.


United States


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V. Observations concerning Historical Sites, Museums, etc. of the National Park Service.

In order to make it possible for Dr. Ruth to familiarize himself with the various problems arising in the field and at the same time to give him an opportunity to state his impressions and to give suggestions, a series of field trips was arranged during the winter. The following sites were visited and comprehensive reports thereafter submitted by Dr. Ruth which were circulated with the museum division and are now filed with the records of the National Park Service. The places visited and reported upon are:

- Salem
- Morristown
- Hopewell Furnace
- Gettysburg
- Fredericksburg
- Wakefield House
- Colonial
- Carter's Grove
- Williamsburg
- Richmond (Battlefield)
- Petersburg
- Appomatox Court House
- Lee Mansion
- Lincoln House
- Fort McHenry

A special report has been written by Mr. Ruth on the "Reconstruction of the furnishings of the White House at the time of Monroe" which has been made available to the National Capital Parks for their work on inventorizing the White House.

Dr. Ruth has also studied European literature concerning the technical problems of conservation with the results being made available to the Branch of Engineering.