

T H E   T E A C H I N G   M U S E U M

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIRE-  
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A B S T R A C T

THE TEACHING MUSEUM

JOHN RICHARD STOPFEL

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY ON MAY 23, 1960, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER IN ARCHITECTURE

This thesis proposes a new building for the Addison Gallery of American Art at Andover Academy. The architectural design follows a study of the evolution and growth of museums from their earliest origins. Special attention is given to John Cotton Dana, Alexander Dorner, Francis Henry Taylor, and others whose work was significant in the era when museums were first thought of as institutions with public responsibilities.

The proposal includes a detailed outline of the characteristics of the so-called "living museum" as a significant 20th Century institution. These characteristics are then applied in a program for the new Addison Gallery and are appropriately modified and extended as dictated by the specific circumstances.

Special study is given to the appropriate size, shape, and configuration of exhibition spaces, to exhibition techniques, and to art museum lighting.

242 Walnut Street  
Brookline 46, Mass  
May 23, 1960

Pietro Belluschi, Dean  
School of Architecture and Planning  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts

Dear Dean Belluschi:

In partial fulfillment of the requirements for the degree of  
Master in Architecture I herewith submit my thesis entitled  
The Teaching Museum.

Yours respectfully,

John Richard Stopfel

## A C K N O W L E D G M E N T S

The author wishes to express his sincere thanks to the following people whose assistance has been invaluable in the preparation of this thesis:

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## I N T R O D U C T I O N

Herbert Read has said, "It has always been the function of art to stretch the mind some distance beyond the limits of understanding." Such stretching of the mind never takes place without a willingness for it on the part of the beholder. The museum is for most men their closest contact with art. If it is pompous and dull it will be useful only to those with enough initial enthusiasm to overlook the pomposity and dullness. If it is to arouse the latent interest of the casual visitor it must promise some worthwhile reward.

This thesis is an attempt to show how a fresh approach to museum architecture might enrich museum experience and unlock the artistic treasures of the past and present to greater numbers of people.



## WHAT IS A MUSEUM ?

The concept of museum (literally the realm of the Muses) has existed for twenty-five or more centuries and has been passed down to us, as have so many of our ideas and institutions, from the Classical civilizations around the Mediterranean Sea. In the city-states of ancient Greece the museum was not a place but an atmosphere which encouraged the study and critical examination of religion and ethics. Such study was regarded as service to the Muses.

In Hellenistic Alexandria the museum founded by Ptolemy I was less theoretical in its emphasis. It was the great university or research institute of the Greek world, built and equipped for literary and scientific study. In its vast and varied collection were such objects as statues of philosophers, votive donations, astronomical and surgical instruments and animal products including elephant tusks and the hides of rare animals.<sup>1</sup> This accumulation of specimens and the encyclopedic character of the Alexandrian museum are remarkably familiar to us for most of our own 20th Century museums differ from it only in their details.

In Roman civilization great collections of objects were amassed, but the motive was not to create museums. The personal hoards of the Roman generals were acquired by conquest



and were a kind of insurance on solvency, quantity rather than quality or interest being the measure of their worth. Vases, tapestries, silver, bronzes, paintings, and marbles, taken from the conquered Greeks and other peoples, were entombed, never to be studied or admired and only to be exhumed in case of economic emergency. The Roman people were not, however, denied all the benefits of museums, for in Rome the very streets and temples were galleries of sculpture, often intended primarily to instill the citizen with pride in his leaders and their accomplishments, but nevertheless effective in developing his aesthetic sensibilities.

After the decline of the Classical civilizations and until the Renaissance, the idea of museum, as we understand it, seems to have become lost; at least no important manifestations of it are known to us. It is often said that the churches and cathedrals of the Dark and Middle Ages were the museums of those times in that they were repositories for the relics of Christianity and for the treasures which comprised the spoils of religious wars. We know well that all the great art produced in Europe during the Middle Ages was of and for the church, and consequently the churches were, in a sense, museums of art. In fact they were the first museums which were accessible to all the people, without regard to wealth, social level or degree of education. Very possibly they were more effective in fostering understanding and appreciation of

art than self-conscious museums created for that purpose would have been, but it must be remembered that art in Gothic churches was revered by most people for its symbolism and magical properties rather than because of any appreciation of its aesthetic qualities.

In Renaissance Europe museums returned in a form that had elements derived from both their Greek and Roman forebears. Great collections of objects, principally paintings and sculpture but also specimens from nature, scientific instruments, and curiosities of all sorts, were compiled by nobles and merchants for their own private enjoyment and edification. But these collections had a significance far greater than that of the Roman treasure hoards. Because they were put together by somewhat enlightened individuals and even occasionally by connoisseurs such as the Medicis, the Renaissance collections were generally of high artistic quality as compared with the earlier Roman ones. But their aims were never as noble as those of the Alexandrian Museum, and because of their very limited patronage they could claim no uplifting influence among the masses of the people.

Beginning in the 17th Century and continuing down into the beginning of the 20th Century, encyclopedic works called museums were published in book form. Possibly the first of these was the Museum Metallicum, published in 1600 by the

naturalist and collector Aldrovandi of Bologna. This work presumably contained all man's knowledge on the subject of metals.<sup>2</sup> As recently as 1906 a Museum of Dramatists, composed of the texts of English plays, was published in London.<sup>3</sup> The same encyclopedic character has dominated art museums and most other kinds of collections during the past three hundred and fifty years. The emphasis on acquisition and preservation has amounted to a mania, preventing or discouraging any enlightening or uplifting use of collections. Only in the 18th Century did the palace-museums of the wealthy and titled begin to be opened to public view and by then museum character was so set that subsequent museums built by and for the people continued to be palaces in their concept and in architectural execution. The traditions of private collections were perpetuated when the collections were made public, regardless of the disparity of purpose and circumstances. Often the early public museums were magnified and distorted versions of private collections.<sup>4</sup> In America it was not until the early 1930's that the Renaissance palace form was abandoned for new museum buildings.

Beginning sometime in the middle of the 19th Century museums began a slow process of reform. New ones were founded and built and these were intended to serve entire populations, but still only scholars could hope to find them useful. Children and uneducated adults were expected to benefit from

museum collections in the same manner that experts used them, and no effort was made to make a museum visit intelligible to the uninitiated. A spirit of hoarding and boastfulness continued in a majority of museums, at least of European ones, and the significant reforms were yet to come in the 20th Century.

Immediately after the First World War European museums began to be cognizant of the fact that they needed to redirect their efforts and redefine their aims, and attempts were made to create vital institutions which would have a widespread public influence. Regretably the museums which emerged in this period, rather than encouraging genuine and unbiased inquiry, were largely propaganda organs calculated to foster public interest in and support of particular "causes." In post-Czarist Russia some museums were arranged according to their direct usefulness to various special interest groups, and so emerged museums and museum departments dedicated to agriculture, machine production and other occupational specialties. The collections of the great art museums, however, particularly the Hermitage and the former Museum of Fine Arts in Moscow, were rearranged and supplemented with utilitarian objects to depict life under various historical conditions of society and the contributions to the process of social evolution made by different classes of society.

Alma S Wittlin describes the French department of the Hermitage in the 1930's as follows:

There was the France of royal absolutism, symbolized by large gobelins in cool academic style, costly inlaid furniture and silversmith-work, and the France of the feudal and moneyed upper classes coming to the fore with the disintegration of the absolutist régime and recalled in another room equalling the former in luxury but with louder and livelier accents in the paintings and accessories. Further rooms with differing sets of furniture, pictures and other objects aimed at evoking the memory of the French middle class, at a period when it had been the ally of kings against feudal aristocracy, and later, at the Dawn of the great revolution.<sup>5</sup>

She goes on to say in the same work:

In the Museum of Modern Art in Moscow paintings of realistic, impressionistic and expressionistic styles were exhibited as illustrations of the contradictory strains of the 'bourgeois' society of the 'imperialistic era.'<sup>6</sup>

In other European countries similar developments took place in this period. Italian museums of the time were slanted toward instilling the love of Rome and creating an atmosphere of Italian family unity. The German museums served the Neo-Socialists, not always voluntarily, by fostering a spirit of intense nationalism. Museums had progressed from ignoring the people to manipulating them. Still they did not encourage unbiased inquiry nor seek to stimulate the latent mental powers of the people.

It is widely believed, even among European museum authorities, that the hope for the future of the museum lies in America. Almost from the beginning in this country museums have been of, by, and for the people, and we have not the great back-

ground of stagnancy to overcome that plagues the Europeans. Certainly the American museum tradition is not free of all the architectural and organizational encumbrances of European museums, but we have the advantage of having a public-oriented museum movement beginning as early as 1773 when the city of Charleston, South Carolina opened a Universal Museum to the public. In this country there had been no vast collections amassed by private individuals, and as collections did begin to grow they tended to be based on their educational value to the common people, rather than their prestige value to a wealthy dilettante. Still thoughtful museum directors were far from happy about the ineffectiveness of museums and in 1917 John Cotton Dana of the Newark Museum wrote:

Today, museums of art are built to keep objects of art, and objects of art are bought to be kept in museums. As the objects seem to do their work if they are safely kept, and as museums seem to serve their purpose if they safely keep the objects, the whole thing is as useful in the splendid isolation of a distant park as in the center of the life of the community which possesses it.

Tomorrow, objects of art will be bought to give pleasure, to make manners seem more important, to promote skill, to exalt hand-work and to increase the zest of life by adding to it new interests; and, these objects being bought for use, will be put where most people can most handily use them, in a museum planned for making the best use of all it contains, and placed where a majority of its community can quickly and easily visit it.<sup>7</sup>

Whether or not we agree with all of Dana's ideas for the museum of tomorrow, his importance as an early voice in the wilderness is clear. Dana put his ideas to work in his own Newark Museum beginning in 1914 with his "museum of museum

experiments" in which he tried numerous revolutionary techniques of exhibition calculated to stimulate visitors and open for them whole new areas of thought. His main concern was that the museum should be as accessible to their minds as to their eyes and that it should help to make life "more interesting, joyful and wholesome." To accomplish this Dana considered it imperative to break down the distinctions between fine and applied arts. He felt that the museum could only be successful in relating itself closely to the life of the people if it concerned itself with promoting and encouraging good design in what he called the "adornment of life" -- its applied arts.

About two decades after Dana's initial experiments came the work of Alexander Dorner at the Museum of The Rhode Island School of Design and of Francis Henry Taylor, first at the Worcester (Massachusetts) Art Museum and later at the Metropolitan Museum of Art in New York City. Dorner came to the United States from the directorship of the Landesmuseum in Hannover, Germany, where he had become a leading exponent of modern art and a friend and supporter of the Bauhaus.

The story of his growth out of 19th Century academicism and his emergence as a farsighted and eager museum man is a fascinating one and far too involved to recount here, but two experiments made at the Landesmuseum, the Abstract Cabinet

and the Room of Our Time, stand out. The Abstract Cabinet was designed for Dorner by El Lissitzky, the Russian Constructivist, in 1925. It was the climax of the Landesmuseum's sequence of atmosphere rooms and contained works by Picasso, Narcooussis, Léger, Gleizes, Kandinsky, Lissitzky, Klee, Gabo, Mondrian, Schlemmer, Baumeister, Archipenko and Moholy-Nagy. The room itself was designed as a kind of dynamic Mondrianesque composition in which paintings were mounted on sliding panels which could be moved by the viewer to reveal more paintings underneath. The visitor to the Abstract Cabinet was thus encouraged to participate personally in the experience and to sense the dynamism which Dorner believed was the soul of modern art.

The Room of Our Time, though never quite completed, carried the idea of the Abstract Cabinet much further. In addition to showing the development of industrial design from the Werkbund to the end of the Bauhaus and the development of modern architecture from Sullivan and Wright through Eliel Saarinen, Mies Van der Rohe and Gropius, this final room in Dorner's "sequence of man's vision" employed motion picture films, projected images of Gropius' Total Theatre project and Schlemmer's Triadic Ballet, as well as Moholy-Nagy's Light Machine which, when actuated by the viewer, projected a continuously evolving stream of abstract compositions in color. The reader is advised to read Cauman's The Living Museum for



a fascinating account of these two priceless contributions which Dorner made to the advancement of museums as stimulating and vital institutions.

The rise to power of Hitler and the National Socialist Party brought with it a great tidal wave of reaction against all progressive thought and institutions. Modern art was anathema to the Nazi's and the Bauhaus immediately came under fire. Dorner made himself a marked man by public intercession in defense of the Bauhaus and his last four years at the Landesmuseum were a constant struggle to maintain a refuge and last stronghold for the mortally threatened art of his day.

Finally, threatened with extinction, he made his way to the U S A where he was welcomed by Gropius, Herbert Bayer, Josef Albers and other Bauhaus expatriates.<sup>8</sup> Such were the events that transferred to this country much of Europe's artistic talent and progressive museum thought.

When he had been in this country but four months and with the sponsorship of Alfred Barr of the Museum of Modern Art and John Nicholas Brown, a distinguished collector from Providence, Dorner was given the directorship of the Museum of the Rhode Island School of Design.<sup>9</sup> Thus January 1938 marks the beginning of a new era of museum activity in the United States. While at Providence Dorner's philosophy matured and he had complete freedom to shape his museum into a measure of

man's development as he saw it. For Dorner the museum and art history were useful only insofar as they help to give us a clearer picture of where we are, from whence we come and where we are going. Dorner believed, like Giedion, that: "The new museum should show things as long as they are in movement and not only when they begin to lie in their historical coffin."<sup>10</sup> Objects of art could not be isolated, either from art of adjacent periods or from the applied arts of their own period. They must be seen as steps in the progress of historical evolution, related to the social context of which they are a result.

Carolyn Sherman says:

Dorner believed that a museum was more than the galleries of oil paintings and a conglomeration of rare items. His philosophy of museum installation was that the Museum of Art was a place to display excerpts from the cultures of the past in a setting or "atmosphere" to emphasize the specific picture of reality that they had created, to show the story of man's evolution from the primitive cultures to our much more complicated and efficient own time.<sup>11</sup>

Concurrent with the work of Alexander Dorner was that of Francis Henry Taylor, who revolutionized New York's Metropolitan Museum of Art after a long training period of experimentation and development at the Worcester Art Museum.

Taylor's attitude toward his work, both in New York and at Worcester, can be summed up in his own words:

We must look to the study of man himself, and we must recognize that education is no longer the prerogative of an

initiated few but the vital concern of the community at large. Unless we reaffirm our faith in the study of the human individual, all of the objects in all of the museums of the world shall have been excavated, catalogued and classified in vain.<sup>12</sup>

Taylor was opposed to the passive attitude toward exhibition which preferred to let objects "speak for themselves" while standing in isolation against a neutral background. This kind of treatment had been encouraged by scholars and connoisseurs who tended to resent any intrusion by the personalities of museum directors, but Taylor was concerned with broader effectiveness for his museums and he knew that casually interested visitors often welcomed such intervention as an aid to greater appreciation and understanding of the exhibited objects.

He was certainly acquainted with the work of Alexander Dorner in the Hannover Landesmuseum and Dorner's "atmosphere room" idea, an idea which he adapted and interpreted in his own way. Believing that an isolated work of art was like a fish out of water, Taylor sought to assemble objects of similar origin in a room which, by its lighting, color and spatial arrangement, attempted to provide a vision into the thoughts and feelings of the earlier day which the objects represented. These rooms were certainly not "period rooms" in the usual sense because they made no attempt at a literal reproduction of a historical environment. Taylor's method differed from

Dorner's mainly in that he was not as much concerned with the role of the applied arts as a part of the total cultural picture.

The impact of Dana, Dorner and Taylor on American museum thought has been great and lasting, perhaps too lasting. Though many American museums are still living in the 19th Century, many more have progressed with giant steps, only to become mired in complacency and self-satisfaction with their newly discovered usefulness and greatly increased public interest. Alexander Dorner would certainly be saddened to see his methods being widely adopted and given the sanctity of permanence, a development which is the antithesis of his vision of the continuous evolution of man and his products and therefore of the "living museum."

The foregoing discussion concerning the beginnings of public museums, though concerned with museums in general, tends to emphasize museums of art and use them as examples to the exclusion of other types, but it need not have done so. Museums of science, of natural history, of ethnology, of industry -- all have been faced with the same necessity of deciding who comprised their audiences, assessing the needs of these audiences and finding the means of satisfying these needs. Museums concerned with subjects other than art have probably been more generally conscientious in their attempts to make

exhibits useful than have art museums because of the tendency of curators and directors to look at enjoyment and understanding of art as the exclusive privilege of the educated connoisseur — the man who does not need or desire any assistance and who is able to create his own museum experience. Nevertheless, museums of all sorts are still in their social infancy.

It is the purpose of this small resumé of museum history to make it apparent to the reader that the transformation of museums from private treasure hoards to significant public institutions has only begun and that the possibilities for the future are limitless.

In the words of Archibald MacLeish:

What is required...is a recognition in common -- a recognition by all of us together -- that the world is not at all what we have been taught from the beginnings of history to think of it, but something else -- that the world is not an archipelago of islands of humanity divided from each other by distance and by language and by habit, but one land, one whole, one earth in which the hurt of one is the hurt of all and the menace of any part the menace of every part.<sup>13</sup>

The museum which widens its horizons and meets the challenge to stimulate and uplift mankind through an attitude of public service and to help unify men and nations by increasing their understanding and appreciation of each other will be realizing the hope of Alexander Dorner that our museums would one day lead in the march toward an integrated modern life.

WHAT IS AN ART GALLERY ?

Many could be found among museum philosophers who would insist that art should not be isolated from science, technology and history or from applied arts in museums. They would say that all these, and the results of many other kinds of human endeavor, must be seen in their relationships to each other to be meaningful and to produce museums that fulfill their tasks as educational instruments. The writer, however, takes the position that art museums differ from all other types in a very fundamental way. Whereas museums of science or technology are visible records of man's physical development and his ever increasing control over his material environment, museums of art are records of his spirit and they show him in his contemplative and soul-searching moods. They are mirrors of his deepest thoughts and of his most profound emotions and, though these thoughts and emotions certainly have bearing on his human activities, they are evidence that man's existence transcends the purely material nature of human beings.

When sciences and art are thrown together in a museum, the tendency of the uninitiated or untrained visitor is to equate or merge the two and to look for parallels in their direction and purpose, certainly a questionable attitude. It is natural for a man untutored in the arts to judge a work of art in terms of his own knowledge and experience, and he often

dismisses it as "crazy" or "childish" because he is unable to find a niche for it in his own system of values. When a museum attempts to synthesize science, technology, history, and the arts, it sanctions and lends support to this tendency by implying, at least, that all these areas of endeavor have a common basis from which they can be evaluated. It is the writer's belief, to the contrary, that to be appreciated fully the arts must be seen or experienced as distinct from the wholly practical considerations that govern technology and from the sense of permanence and inevitability that accompanies history. Art must allow for a great number of differing and even conflicting interpretations and must evoke individual, subjective reactions. If it fails in this, it is craft, or less. To succeed in it, art calls for a special climate of its own, a place and an atmosphere where it can be seen and contemplated without the imposition of irrelevant considerations.

The relationship of so-called "fine" and "applied" arts and the acceptability of applied arts in museums have been argued for centuries and there is still no general agreement on the subject. Opinions range from dismissal of applied art as not art at all to total acceptance of it on equal footing with painting and sculpture, as we have seen in the writings of John Cotton Dana. An object of applied art has as a basic necessity physical usefulness. Every utilitarian object is

conceived as an answer to a specific technical problem. If, in addition to functioning well, such objects are pleasing to the aesthetic sensibilities because of their form, outline, color, pattern and tactile qualities, if the creators of such objects have imbued them with the ability to arouse emotion and if such emotions contribute to the enrichment of the lives of the users, the objects qualify as art. To discount an object because of its utility when it satisfies other criteria of art is to say that art may be "seen" only through the eyes and that tactile sensation may play no part in its perception. If a Persian carpet is as rich and beautifully structured as a Flemish tapestry, should the tapestry be considered art while the carpet is not because it is meant to be walked upon? Is the Barcelona chair by Mies Van der Rohe any less a piece of sculpture because it is possible to sit in it, to feel its contours through the way it supports the body, to sense the luxury of its leather covering through the fingers? Must Arp's free-form shapes in wood relief be thought of as art while similar shapes used by Aalto in creating a glass vase are refused that distinction? It seems absolutely clear that utility is not a proper basis for barring an object from a museum of art. It is true, however, that applied art must be judged by more complex standards than fine art. An object of applied art must be an aesthetic and functional unity, these two aspects of its nature being inseparable and dependent upon each other.



What has been said previously about the necessity for separation between museums of art and other kinds of museums must now be reexamined to clarify the position of applied art. Applied art is a product of technology as well as of artistic creativity, yet it comprises only a minute proportion of the entire output of technological effort. It is this tiny fraction of the whole, the part which transcends pure function and practicality and becomes a thing of joy to the eye and the mind, which may be granted admission to the art gallery. It is not to be inferred from this that heterogeneous mixtures of all manner of fine and applied arts in one exhibition are advocated. One only has to visit a few "period rooms" of the traditional sort to become aware that such arrangements tend to degrade all the objects exhibited. Paintings and sculpture can exist along with furniture and vases but they must not be forced to compete with them.

It is said by some, and with great conviction, that art galleries ought not to exist at all; that they become stagnant pools of misunderstood and blindly accepted academicism; that they set themselves up as catalogues of absolute truth and discourage experimentation or deviation from a fixed standard. Certainly art galleries have been guilty of these sins but it is a sad mistake to think that they are capable of nothing better. Museums of art in this age can have precisely the opposite effect. They can be enthusiastic and energetic

patrons of new thought and fresh expression and they need not be dogmatic. Indeed, they must not be dogmatic.

It is a basic precept of this thesis that the art gallery is a 20th Century necessity, that it must exist to satisfy the needs of men for aesthetic satisfaction. In one sense it must be all things to all men, capable of meeting every individual on his own level and spurring him on to increased interest and enlarged understanding. It must counteract and put into proper perspective the plethora of advertising "art" with which his vision is assulted. It must make of him a discriminating being with the ability to analyze, to judge, to discard or to retain the images which he perceives. Most basic and most important, it must teach him to see, and having done this it must afford ample opportunity for seeing.

The public art gallery does not have a very long history. The early public galleries were not public at all in our sense of the word. Lorenzo di Medici theoretically opened to the public the collection of marbles in his palace garden in the 16th Century, but in fact only artists and art students were welcome. London's Montague House, forebear of the British Museum, was opened to the public by Act of Parliament in 1734, but admission was granted only upon written application and applications were frequently pigeonholed for months. Under Catherine the Great Russia's Hermitage, with its

magnificent collection of Flemish, French, and Italian paintings was opened to the common man -- but only if he wore a dress suit. Eventually art galleries began to accept all visitors interested enough to appear. The British Museum did so in 1759; the Museo Pio Clementino in Rome in 1773; Vienna's Belvedere Palace in 1781; the Louvre in 1793; the Berlin Museum in 1810; the Prado at Madrid in 1820.<sup>14</sup> Even when the galleries began to admit all comers, it was usually only during a few hours each week. Not until the end of the 19th Century did they become truly accessible to large numbers of people.

Today there is no necessity to urge the opening of art galleries to the public. In our large cities, at least, the galleries are greater in number and broader in scope than we are capable of using or comprehending. Roberta Fansler Alford of the Rhode Island School of Design Museum seems to have seen clearly the nature of the museums' future tasks when she said: "It is the fact that the art museums are the repositories of a large part of man's spiritual history that places squarely on the shoulders of museum directors the responsibility to make their collections really accessible to all the people, accessible to their understanding as well as to their eyes."<sup>15</sup> It is the writer's hope that some of the ideas and proposals presented in subsequent sections of this thesis may be stimulating to all persons interested in art galleries,

whether they are museum workers, museum architects or museum goers and that these people may be inspired to undertake or to encourage further and, hopefully, more fruitful adventures into the limitless possibilities of the museum of art.

It would not be much of an exaggeration to say that museum architecture did not exist before the early 1930's. Nearly all museum buildings built up to that time were crude adaptations of the Renaissance palace and were notable chiefly for their overwhelming monumentality and their devotion to Classical detail. Their suitability as settings for collections of paintings and sculpture was either not questioned at all or was considered satisfactory if the buildings succeeded in recalling the pomposity and exclusive aristocratic character of the palaces that had housed the great private collections of previous centuries. John Coolidge said of American art museums: "With rare exceptions they are classic examples of the species White Elephant -- too impressive to destroy, too clumsy to use and too expensive to maintain in idleness."<sup>16</sup>

In the United States the year 1932 seems to mark the turning point in the approach to art gallery architecture. In that year Pietro Belluschi's building for the Portland Museum of Art became one of the first galleries to be built with a real concern for the satisfaction of its users' needs. Its spaces were human in scale and were organized to make the visitor

feel at ease and in a receptive mood toward the exhibits. A strong attempt was made to exploit the best qualities of daylight and to minimize its faults through the use of monitors. Goodwin and Stone's Museum of Modern Art, completed in 1939, Saarinen, Swanson and Saarinen's 1939 project for the new Smithsonian Institution, and Eliel Saarinen's Cranbrook Museum of 1942 had all thrown off the tattered academic cloak which museums had worn for so long and the revolution in museum architecture had been accomplished.

The art museums being built today comprise a crazy quilt of divergent ideas about the character and uses of gallery space. The most prevalent architectural concept seems to be that of an unobstructed, completely flexible great hall which allows the museum director much latitude for experimentation and a fresh approach to the design of each new exhibition. Of this sort are Philip Johnson's new Munson-Williams-Proctor Institute in Utica, New York, Mies Van der Rohe's Cullinan Hall at the Houston Museum of Fine Arts, and the projects for two new Brazilian museums at Rio de Janeiro and Sao Vicente. Much can be said in favor of this flexible approach to exhibit space, but it becomes a kind of easy way out for the museum architect who is partially relieved of his responsibility to create a meaningful sequence of spaces and experiences.

Le Corbusier's Museum of Western Art in Tokyo and the

Louisiana Museum at Humlebaek in Denmark both avoid this anti-architectural approach and, though vastly different from each other, they both succeed in being good architecture without overpowering the works of art they shelter. The Tokyo building contains in its simple parallelepiped form a variety of interlocking spaces which afford an exciting spatial experience, while allowing paintings and sculpture to be seen well and from a great number of differing viewpoints. The Louisiana Museum by Jørgen Bo and Vilhelm Wohlert clings to its rolling Danish landscape overlooking the Øresund and Sweden. Its gallery spaces are so oriented that paintings and sculpture are seen both simultaneously with and in alternation with views of nature in all its variety. Here, too, the architecture does not assume a neutral or background role but an active one which participates with and sharpens the experience of viewing works of art.

Italian architect Carlo Bassi's project for the new Gallery of Modern Art at Turin is fascinating for its rigid insistence on the availability of daylight in the gallery spaces. Though three stories high, the building is so articulated and sculptured that every level of galleries receives liberal amounts of fairly well controlled skylight. Here architecture is completely dominated by preoccupation with a technical device.

It would be impossible to discuss museum architecture in 1960

without mentioning Frank Lloyd Wright's Guggenheim Museum, the most thought-provoking art museum building of this or possibly any century. So much has been said in press and parlor about Wright's supreme accomplishment in this building's central space and about its shortcomings as an art gallery that any extensive comment here would be superfluous. Wright's building is obviously at the opposite pole from Mies' permissive flexibility in Cullinan Hall. Here the architectural statement is so strong and exciting that it tends to make one forget that there are paintings present, but, contrary to much opinion, the building seems technically and functionally quite adequate, though not perfect. The most significant difference between the Guggenheim and Cullinan Hall as art galleries is that the former dictates a sequential order that must be respected by every exhibition which is ever installed there, while Cullinan Hall can effectively become a new museum for every new exhibition. In the writer's opinion the imposed linear arrangement of exhibitions at the Guggenheim is not necessarily a detriment and is possibly superior to the undisciplined, flexible gallery, which requires for its success a masterful new exhibition design for each new show. It is doubtful whether museum personnel can be expected to meet and master the challenge which lack of a strong and positive architectural framework presents them.

Museum buildings for today must be, first of all, good

architecture. If they succeed in this they will by definition be good museums. Appropriate expression for art galleries must be found somewhere in the middleground between characterless anonymity and intensely emotional showmanship.



FOOTNOTES

1. Alma S Wittlin, The Museum, Its History and Its Tasks in Education, p 1
2. ibid., p 2
3. ibid., p 2
4. ibid., p 133
5. ibid., pp 153-4
6. ibid., p 154
7. John Cotton Dana, The Gloom of the Museum, prologue
8. Samuel Cauman, The Living Museum, pp 118-122
9. ibid., p 128
10. ibid., p 106
11. ibid., p 164
12. Francis Henry Taylor, Babel's Tower, p 53
13. Archibald MacLeish, "Museums and World Peace," in The Museum News, June 1, 1946
14. Alma S Wittlin, op. cit., pp 118-132
15. Roberta Fansler Alford, "popular Teaching in the Art Museum," in The Museum News, February 1, 1946
16. John Coolidge, Notes on the Architecture of American Art Museums



THE IDEA - A "LIVING MUSEUM"

Alexander Dorner's term "living museum" (see Appendix B) describes very well the new museum based on a concept of art as a dynamic and continuously unfolding creative process and of the art museum as an organ of communication, dedicated to the enjoyment and enlightenment of man and to his better understanding of himself and his world. The creation and sustenance of the "living museum" is not the task of a few, but of many. It involves museum directors and trustees, museum staffs, museum architects and, most important, museum users.

Museum workers and directors must be the prime movers of the new movement. They must create a climate in which the "living museum" can be born and nurtured, by their belief in the worth of the individual and his betterment, by their love of art and the supreme joy it is capable of giving man, and by their enthusiasm, imagination and ingenuity.

The architects of art museums must themselves be artists and must possess the ability to shape a meaningful physical environment to contain the "living museum." This environment must not be absolute and unchangeable but must be able to transform itself as art and vision grow and evolve.

Ultimately the success of the "living museum" will depend on the great masses of the people, their interest, and their willingness and ability to be enlightened and elevated. The people's reaction to and acceptance of the new museum cannot be predicted, but there is every reason to be confident that public interest will not be lacking if the architects and the museums themselves accept the challenge and do their work well. The following paragraphs will outline briefly the basic features and attitudes of the new museum and attempt to show how it can fulfill the needs of this age.

Where? — The new museum must be built where it will have the opportunity of reaching the greatest number of people. The goal should be to create many small museums in smaller centers of population. These museums will not attempt to compete with the great galleries in the metropolitan centers but will supplement them and will even take advantage of the wealth of their collections through borrowing and through travelling exhibitions. The new museums will not need large and expensive collections of originals, but will augment and amplify collections of a few owned and borrowed originals with good prints and reproductions.

For What Purpose? — The most important mission of the new museum will be one of education. The writer takes vociferous exception to the words of Walter Pach:

...just as we turned aside from the conception of the museum as dealing solely with ancient material, so we must now turn away, and even more decidedly, from the museum as a kind of scientific or social instrument. It should serve essentially, whether the politician, the educator, and the moralist like the conception or not, to give the highest type of pleasure -- a particularly intense pleasure to those able to experience it.<sup>1</sup>

Pach goes on to say that the numbers of such people are increasing, but he fails to acknowledge that the museum has any responsibility toward assisting this increase. This tendency to look at museum enjoyment as a clannish privilege is foreign to the concept of the "living museum."

The term education as used here does not imply forced feeding with hackneyed principles or impartation of any absolute knowledge but connotes a vigorous encouragement of the individual to sharpen his senses, open his eyes, and use his mental capacities to gain understanding and appreciation of art, and therefore of life. There is no room here for propagandizing, either of the art itself or of the societies and epochs from which it springs. A statement of purpose contained in a recent publication of New York's Museum of Modern Art seems to indicate agreement with this concept of education:

In a museum, understanding should go hand in hand with enjoyment. To understand a work of art, context and sequence are important. Without diminishing the integrity of the individual sculpture or painting, the Museum's new galleries will be arranged so that the relationships between works by one artist or within a group may be recognized. The development of one movement will be followed in subsequent galleries by superseding or contrasting forms and ideas. And this sequence of action and reaction will be varied by rooms where a single masterpiece may be enjoyed in quiet contemplation.<sup>2</sup>

In the words of Alfred Barr, museums are confronted with visitors in every state of mind "from passionate and erudite interest to the most casual indifference."<sup>3</sup> Since the new museum will welcome all men in various states of mind and degrees of sophistication, it will certainly not be organized around a single sequential arrangement of galleries which all visitors must traverse from start to finish. At any one time, in addition to a core of semi-permanent exhibits, it will contain three or four temporary exhibitions so calculated as to cover a wide range of interests and to be meaningful to a variety of people.

How? -- To be effective in carrying out its new tasks the new museum will have to embrace three basic criteria. First, it must be vital and capable of change to meet the changing needs of its age. It is not a shrine of eternal values and must prevent stagnation by its ability to continuously transform itself. With each visit the museum goer should see new objects of art and familiar ones in new surroundings and should be offered fresh stimulation.

Second, it will have more of the character of a workshop than of a storehouse-palace. It will encourage creativity and will give its visitors glimpses of art in the process of creation as well as in its finished form. It will exhibit the works of contemporary and local artists as well as older and more

widely accepted works and will include examples of applied art.

Third, the new museum will recognize the fact that the visual arts do not exist in a vacuum but are related to the other arts such as music, drama, and poetry, and it will sponsor exhibitions which illustrate such relationships. In addition it will provide for poetry recitations and performances of music and drama.

Though these principles will form the basis of the "living museum" they are not sufficient in themselves to make it "live." A great deal of imagination and receptivity toward new ideas and exhibition techniques will be required of museum personnel. In the beginning, effective use can be made of architectural models and photographs, transparencies, slides and films, and recorded sound in conjunction with paintings and sculpture. With time, many additional devices and techniques, as yet unthought of, will present new possibilities. Completely new art forms, of which Moholy-Nagy's light machine is an example, will be given their places in the new museum.

An experimental exhibit called "Ways of Seeing" was planned and executed by Lee Simonson at the Worcester Art Museum in 1940. The exhibit employed loud-speaker comments and was

intended to illustrate the various means employed by artists in the creation of their work from their observations of the world about them. The following is a description of the exhibition taken from the Art News:

Line alone is the subject of the first section which comprises a group of reproductions of drawings from a primitive outline of a bear to a drawing by Segonzac, including examples of the weight and volume expressed in the linear elaboration of a Rembrandt.

A second section is concerned with tone and contrasts of light and shade. Here a sculptured head is variously lighted to emphasize first the general mass and then the detail, and slides of actual landscape paintings are projected with a Polaroid lantern to illustrate a depth of space. Next, in a series of reproductions of landscape paintings attention is called to the manner in which the artists, by their use of tone and light and shade, convey to the spectator the illusion of space and distance.

Color and its effect on pictorial rendering of form and space are demonstrated in a third section by a series of models which are lighted in various hues to bring out the effect of palette on form.

In a final section variations of a simple architectural form, the beam and lintel, are revealed in glass models which reproduce a New England house of the early eighteenth century, an English cross-timbered house, a Pompeian house, a Japanese house and a modern building.<sup>4</sup>

This early educational exhibition was daring in its defiance of tradition, but its success proved that people were ready and eager for the museum to communicate with them in fresh and stimulating new ways.



APPLICATION - ADDISON GALLERY

The Addison Gallery of American Art at Phillips Academy, Andover, has been chosen by the author as an excellent institution on which to try out his ideas for the "living museum." The Addison Gallery is an ideal subject for such an experiment because the seeds of progressive museum thought have already been sown there and are flourishing. The gallery has at its head a particularly perceptive and forward-looking man in the person of Bartlett Hayes, who is basically in agreement with Alexander Dorner's theories about the museum's responsibilities and methods and who for a number of years has been making art come alive for Phillips Academy boys, as well as for a small but enthusiastic number of the general public.

Phillips Academy, usually called Andover, is situated in the small Massachusetts town of Andover, which is close enough to Boston (about 30 miles) to be within its sphere of influence and even closer to the large industrial towns of Lawrence and Lowell. The academy, which has a normal enrollment of about 800 boys in four classes, is over 180 years old and has long had an enviable reputation as a school of quality and high standards. Andover is not living in the past of dead academic drill and snobbish preoccupation with the sons of the wealthy. Admission to Andover is now granted without

knowledge of or reference to financial status of the applicants, and subsequent scholarship aid is provided for all those who are in need of it. The qualifications and motivations of Andover students today are exceptionally high and the school is striving to prepare them for useful and significant lives in a new and changing world. The following two paragraphs from The Andover Program Workbook, a 1958 publication, seem to summarize educational attitudes of the school:

...twenty-five years ago an Andover training was just as rigorous as it is today, but it consisted for the most part of intensive drill which offered little opportunity to learn by actually doing an original piece of work. A good student was one who could answer any question the teacher asked. Today, in almost every branch of the curriculum, the same basic discipline exists; but superimposed on that discipline is the opportunity to learn by experience, to do independent, creative work.

For example, in science, students not only learn formulae, but in labs and individual projects thoroughly test out the principles with which they are dealing. In history, they not only get control of a large amount of factual material, but, through term papers, learn something of what the writing of history entails. In art and music they take courses in appreciation, but also paint, draw, model, photograph, sing, play an instrument, and compose music. In modern languages, they not only learn the necessary basic grammar and vocabulary, but are taught to use the language, in both the spoken and written form, as a living means of expression.

The Andover campus is a sprawling one, characterized principally by broad green lawns, stately trees, and undistinguished neo-Georgian buildings. Two of the academic buildings, however, date from about 1800 and are the work of Charles Bulfinch. In its most recent structures, chiefly a series of new dormitories by The Architects' Collaborative, Andover has

broken with its Georgian traditions and shown its intention to build its new buildings in the spirit of this age.

The Addison Gallery of American Art was built on the Andover campus in 1932 in the traditional manner of the palace-museum -- formal, symmetrical, and manifesting little concern with or understanding of the needs of its patrons or the works of art it housed. In fairness it must be said that, in some respects, the building has great charm and warmth, but these qualities seem to exist quite apart from its nature as an art gallery. In particular, the main stair connecting the first and second floors and its Palladian window are remarkably elegant. This stair hall is without doubt the finest space in the building.

The gallery was built without any deference to its use as a teaching facility and it is found quite inadequate today to house the vigorous and ambitious program of art education that Andover promotes. Nevertheless, much is being accomplished and the results being produced by the boys taking the creative visual design courses at the Addison are far better than one would anticipate. The author had occasion in July, 1959, to visit the Addison Gallery and to see an exhibit of student work -- sculpture, drawing, and photography -- which would certainly have been worthy of college-level students. (See Appendix C)

The exhibitions at the Addison, though primarily intended for the edification of the students and for use in conjunction with art appreciation and art criticism courses, have much broader usefulness and are always of interest to a great variety of people outside the academy. The public spirit of the academy and of the gallery's director evidenced in their "open door policy" makes the Addison a significant activity in the cultural complex of the Boston Metropolitan area.

A third and no less important activity of the Addison Gallery is its patronage and encouragement of American art and of contemporary American artists. This fact has the beneficial effect on both students and public of increasing their awareness of our own art, its origins, its relationship to our life and to the art of other countries. Though the emphasis is definitely modern and American, historic and European art are not ignored but are used to fill in the context and create a healthy perspective. A 1954 exhibition at the Addison called VARIATIONS...Three Centuries of Painting contained 47 canvases, ranging from El Greco through Tiepolo, Cezanne, Homer, Turner, and Klee to Picasso, Hofmann, Shahn, and Steinberg. This exhibition's purpose was to demonstrate the fact that: Each era gives us artists with new vision and each of these artists has evolved a personal means of expression distinct from any other. Contemporary painters continue the self-searching vital to the creation of valid and individual new forms.<sup>5</sup>

The purpose of this thesis is the creation of a new architectural environment for the Addison Gallery, based on the concepts of the "living museum" and so conceived as to permit extending, intensifying, and vitalizing the gallery's present activities. With a new building possibilities for meaningful and exciting exhibition arrangements could be increased greatly; more versatile lighting could be possible; related arts could be experienced in proximity to painting and sculpture; and the use of a great variety of new teaching techniques and devices would be made possible.

Creative activities in the areas of painting, drawing, sculpture, photography, and set design and construction, which are now possible only on a very limited basis, could be offered to all the students rather than to the present limit of fifty. Facilities for films, slide presentations, lectures, drama and music, related to the gallery's other activities, could be provided.

It would be the purpose of the reconstructed Addison Gallery to attract far greater numbers of outsiders than it does at present and to offer them greater stimulation and provocation. The general public would be permitted considerable freedom to view student work in progress, an experience which would further heighten in them the realization of art as a living, growing thing. Thus the students being taught would them-

selves become teachers, and the significance of the Addison Gallery would be vastly increased. It would become a "teaching museum" in a very real sense.

It should be emphasized that these proposals and the subsequent program and design are hypothetical and that their implementation and execution could not at this time be seriously considered, for economic and other reasons. The author's purpose is to stimulate thought on the subject of museum usefulness and to show by an actual design some of the possibilities for making museums more effective and inspiring. In addition, it should be pointed out that Andover is contemplating an addition to the existing Addison Gallery which would provide space for creative workshops, for the use of visual aids, and for an auditorium to house lectures, plays, and concerts. The author's program for these functions in his proposed building will be based in part on Andover's program.

FOOTNOTES

1. Walter Pach, The Art Museum in America, p 6
2. Museum of Modern Art, Toward the "New" Museum of Modern Art, p 20
3. Alfred H Barr Jr, "Research and Publication in Art Museums," in The Museum News, January 1, 1946
4. "Worcester: Experiment in Unusual Education," in Art News, November 9, 1940
5. From the exhibition catalog





S I T E   A N D   C A M P U S   R E L A T I O N S H I P

The choice of a location for the new Addison Gallery seems to involve two important considerations. First, the gallery requires a prominent position in the campus -- a position which is near the centers of academic and leisure activity and which is closely related to the library, the auditorium in George Washington Hall, and other facilities which receive frequent and intensive student use. It is desirable that the building be so located as to encourage casual visits during the students' scattered unoccupied moments. Second, the building should be sited to command the attention of the passing public. To play its role as an organism with wide public influence and significance, it must be in or near the streams of human movement and must invite the passerby to enter and partake of the rich experiences it offers. The present location of the Addison Gallery seems to come as near as possible to satisfying these criteria. It occupies a position in the functional heart of the campus as well as forming a prominent landmark on Route 28 (the main highway to Andover from Boston) where it may be seen by thousands of passing motorists. Consequently, it is proposed that the new Addison Gallery should be built on the site of the existing building.

The Addison Gallery occupies a key position in the academic complex of the Andover campus. It stands at the natural gateway to the main quadrangle for persons approaching it from the north. Most visitors approach the quadrangle either from the Andover Inn or from their cars, which they park along Chapel Avenue, the street that passes between the main campus on one side and the chapel and Andover Inn on the other. At present the only calculated approach to the quadrangle is the axial one leading up to Samuel Phillips Hall from the main road. This functions well for students who live on the west side of the campus across the highway but is useless for most visitors, whether they come on foot or in automobiles, and for students residing in the new dormitory development located on the east side of the campus. Consequently, the new Addison Gallery must act as the gateway to the quadrangle and as welcoming center for visitors.

At present the visitor's approach to George Washington Hall, the administrative center of the academy, is ungracious, abrupt, and unsatisfying. In a majority of instances the visitor proceeds along the side of the building from its rear, up several steps and then makes a sharp turn along its front facade to the entrance portico. The monumental quadrangle which comprises the building's forecourt is useless as a preliminary experience to entering George Washington Hall. One thing which the new Addison Gallery and its situation in

the landscape should attempt to do is provide a more graceful approach to George Washington Hall.

One desirable side effect of the new Addison Gallery would be that the auditorium and workshop facilities included in it will permit more effective use of the stage facilities in George Washington Hall. The George Washington stage has long been crippled by the numerous simultaneous demands made upon it. It has had to serve all the needs of performances, rehearsals and scenery construction. The stage and auditorium in the new Addison Gallery will greatly relieve this situation by permitting two presentations to be in preparation or performance concurrently. The design and construction of scenery will take place in the new student workshops and will therefore relieve the George Washington stage of this activity.

## F U N C T I O N S

### 1. Circulation and Orientation

The lobby or reception room is the control center of the museum and should be arranged and equipped so as to welcome all visitors, help them find their bearings, and afford them easy and direct access to whatever part of the building they wish to visit. Both students and visitors from the general public will use the same entrance and lobby facilities. Direct access should be possible from the lobby to the exhibition spaces, the auditorium, the library, the student workshops, the main lounge, and the administrative offices. Entrance to any one of these areas should be possible at times when the remainder of the museum might be closed.

The lobby will provide space for the following: museum information and directory, garment checking to accommodate 75% of the maximum auditorium attendance (300 garments), seats for waiting for about ten people, sales of publications and prints, visitors washrooms, drinking fountain, public telephones, and a small storage area.

Apart from the main public entrance the building should have an absolute minimum of possible entrance and exit points to

permit easy control and minimize possibility of theft.

Exhibition areas should, as far as possible, be kept on a minimum number of levels, and where vertical circulation is necessary it should be made effortless to minimize "museum fatigue" and permit use of the museum by infirm visitors. Circulation paths between and through exhibitions should be ample to permit easy movement of groups of twenty-five or thirty persons.

## 2. Exhibitions

In the exhibition spaces the emphasis will be on temporary and traveling exhibitions with a relatively small core of permanent exhibits, selected to establish the historical context for showings of contemporary art and to supplement and support the themes emphasized in temporary shows.

Even the permanent exhibition will not be absolutely fixed, but will occasionally draw on the museum's reserve collections for fresh or supplementary material to maintain its vitality and perpetuate visitor interest. Its purpose, however, will remain that of background and support for the temporary exhibitions. The permanent exhibition space will not be comprised of picture galleries in the usual sense, but will provide

facilities for photographs, prints, and transparencies of architecture, town planning, and landscape design which are related to the displayed objects. Systems of earphones or loudspeakers should be provided through which to hear viewer-actuated comments, music, dramatic excerpts, and poetry of the appropriate period. The permanent exhibitions will comprise about one-third of the total exhibition space.

The remaining two-thirds will be for temporary and traveling shows. Approximately half of this will be composed of galleries, fairly usual in size and shape, for shows of traditional and established art. The remaining half will have, as nearly as possible, complete flexibility to allow full freedom for interior arrangement, depending on the requirements of each individual exhibition. The roof structure of this flexible space should be capable of supporting heavy suspended exhibits. Flexible and extendable systems of lighting, power, and sound distribution should be incorporated.

A small outdoor exhibition area will be included for the display of sculpture or for one-day shows of paintings and other objects.

For comfort of visitors and ease of movement vertical circulation should be minimized. Carefully located at strategic positions in the system of exhibition spaces should be the

following: several small resting areas with daylight and pleasant outdoor views, preparation and temporary storage rooms, mop sinks, and other cleaning facilities. Provision should be made for counting by electronic means the number of visitors circulating through exhibition areas.

Expansion of exhibition space will not be considered as a factor in the design, since it is the author's conviction that growth should take the form of evolution and internal change rather than the form of accumulation. Such growth could take place within the building as it would be initially constructed. A great increase in numbers of public attracted by the museum should be cause for founding new small museums close to the people they will serve, rather than for continuous growth of one central museum.

### 3. Auditorium and Audio-Visual

An auditorium-theatre of about 400 seats will be provided to house lectures, motion pictures, and slide shows as well as performances of music, drama, and any other productions of which the museum or the academy might be the patron. The stage should be of the proscenium type with an ample forestage. Fly space should be provided above the stage as well as a hard, reflecting, demountable backdrop for musical perform-

ances. A multi-use backstage space should be provided to accommodate scenery construction and storage and assembly of performers. In addition the following rooms are needed: space for storage of props and costumes, dressing rooms and washrooms for men and women, a small green room, and one small office. At the rear of the auditorium will be located a projection booth and a small booth for recording of sound.

In conjunction with the auditorium there should be lobby space of about three square feet per seat in addition to the main lobby of the building. Since the auditorium will be directly accessible from the main lobby, it should depend partly on this space to accommodate crowds during intermissions and before performances. The washrooms adjacent to the main lobby will serve the auditorium.

Two classrooms for 50 persons each will be provided. These will have complete provisions for the use of visual and audio teaching aids. A small recording room will be provided for use in connection with the audio-visual classrooms and for radio and television broadcasting. The audio-visual area should contain a general office, one small private office, a small storage room, and mop sink and cleaning facilities.



#### 4. Student Workshops

The workshop or studio area of the museum comprises one of its most significant aspects. Here the students receive instruction in painting, drawing, stage set design, sculpture, photography, and architectural design. This is the creative heart of the museum where each student learns to know tools and materials and uses them to transform his own ideas and emotions into tangible visual compositions. The workshops, though not freely accessible to the general public, should be visible to them, and, through seeing the student work in progress, the visitor's sense of the vital and living nature of art should be heightened.

Wash-up facilities, storage for materials, office space for instructors, and toilets should be provided.

#### 5. Library

A small library consisting of basic books on art and architecture, prints, photographs, and slides will be a necessity. These materials will be used to permit deeper study of ideas introduced to the visitor or student by the museum exhibitions.

## 6. Public Amenities

It is proven fact that so-called "museum fatigue" is lessened and visitor interest more easily maintained when provisions are made for visitors' occasional diversion from the serious business of looking at exhibits. In addition to the previously mentioned resting areas scattered through the exhibition spaces, provision will be made for one main lounge, preferably closely related to the lobby and theatre. This area will be spacious and conducive to relaxation and will afford visual contact with the out-of-doors. It will provide for simply relaxing, reading, waiting for friends, writing and mailing of postcards, and a small amount of storage. Part of the lounge will be used for serving light luncheons from a small kitchen facility adjoining. Occasional receptions and openings of exhibitions will make use of the lounge for receiving and entertaining guests.

## 7. Administrative, Curatorial, and Operational Space

The administrative space for the museum will include offices for the director and his secretary, a conference room, and space for files and storage.

A curatorial suite will be provided containing: offices for

a curator, one or two assistants, and a secretary, a study and workroom, and space for files and storage. This space should be closely related to the exhibitions and to material in the collection not on display.

The following operational or behind-the-scenes activities will be provided for: service entrance, receiving room, offices for building superintendent and registrar, a room for photographing of objects (processing of film will be done in the student darkrooms), shops for building maintenance, crating of exhibits, and construction of exhibition structures, storage space, and a freight elevator.

Locker rooms and washrooms for the museum staff will be provided.

#### 8. Exhibit Storage

Storage space for objects owned by the museum but not on display should be at all times accessible to scholars and seriously interested guests. It should in no sense be "dead" storage but should provide acceptable conditions under which to view and study the objects it contains. Paintings may be mounted on sliding screens which can be pulled out from a battery of such screens to positions where they can be easily seen.

## 9. Building Systems and Services

Those parts of the building which are used for exhibitions and storage of objects should be completely air conditioned on a year-round basis. Conditions of temperature, humidity, air cleanliness and air movement conducive to the preservation of museum objects should be maintained at all times. In the remainder of the building mechanical ventilation in summer will suffice in place of air cooling. If the design of the building should make isolation of the exhibition spaces difficult for air conditioning purposes, then the entire building may have to be air conditioned.

Corridors and service elevators should be designed with the requirements in mind of moving very large exhibits from storage areas to exhibition spaces.

## 10. Parking

A generous amount of parking space is available on the Andover campus and in close proximity to the Addison Gallery site so that no great amount of additional parking need be provided for the specific needs of the museum. However, in anticipation of considerably increased public use of the new Addison Gallery, it is intended to provide about 25 additional parking spaces.

SPACE REQUIREMENTS

1. Circulation and Orientation

Lobby	1 600
Information and directory (in lobby)	
Checking	300
Sales	100
Washrooms (men and women)	600
Drinking fountain (in lobby)	
Public telephones (in lobby)	
Storage	<u>300</u>
	2 900

2. Exhibition

Permanent exhibition	8 000
Changing exhibition	12 000
Outdoor exhibition	
Small resting areas	1 000
Preparation and temporary storage	2 000
Mop sinks etc.	<u>100</u>
	23 100

## 3. Auditorium and Audio-Visual

Auditorium (including stage)	5 600
Backstage space	1 600
Prop and costume storage	500
Dressing rooms (men and women)	800
Washrooms (men and women)	400
Green room	400
Office	100
Projection booth	300*
Sound booth	50*
Lobby	1 200
Classrooms	1 600*
Recording room	300*
General office	300*
Private office	70*
Storage room	80*
Mop sink etc.	<u>25</u>
	13 325

Areas marked with an \* are taken from the program for the addition to the Addison Gallery by The Architects' Collaborative.

## 4. Student Workshops

## Painting and graphics

Painting	1 700*
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Graphics	800*
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Textiles	500*
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## Sculpture

Wood	
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Metal	
-- one area subdivided	1 700*

Kiln	
------	--

Forge	
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Wet sculpture	800*
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## Photography

Studio	600
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Developing	100
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Printing	200
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Seminar	300*
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Architectural design and drafting	800*
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Office	300
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Materials storage	500
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Wash-up (in appropriate work areas)	
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Toilets	<u>100</u>
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	8 400
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Areas marked with an \* are taken from the program for the addition to the Addison Gallery by The Architects' Collaborative.

## 5. Library

Reading room	800
Stacks	800
Card catalog	50
Control desk	50
Librarian's office and workroom	<u>200</u>
	1 900

## 6. Public Amenities

Lounge	1 600
Kitchen	200
Storage	<u>200</u>
	2 000

## 7. Administrative, Curatorial and Operational Space

## Administrative

Director	200
Secretary	80
Conference	300
Files and storage	50

## Curatorial

Curator and assistants	200
Secretary	80
Study and workroom	400
Files and storage	50



## Operational

Service entrance	
Receiving room	300
Building superintendent	100
Registrar	100
Registrar's storage	400
Photographing room	200
Shops	1 000
Freight elevator	
Staff locker rooms (men and women)	300
Staff washrooms (men and women)	<u>100</u>
	3 860
8. Exhibit Storage	<u>3 000</u>
	3 000
9. Building Systems and Services	
Space for air conditioning equipment	<u>2 000</u>
	2 000
Total	60 485
30% for service and circulation	<u>18 145</u>
Grand total	78 630

## DESIGN CONSIDERATIONS

In examining the problems involved in art museum design there seem to be three considerations which stand out as having basic importance; these are (1) the size, shape, and configuration of exhibition spaces, (2) exhibition techniques, and (3) lighting. A short discussion of each of these three topics will follow to show how they have been recognized and translated into architectural terms in the design for the new Addison Gallery.

### 1. Gallery Size, Shape, and Arrangement

The dimensions and shapes of exhibition spaces and the details of their arrangement, such as positions of entrances and exits, can be significant factors in maintaining visitor interest and in permitting good exhibition design. Gallery size and shape are impossible to make generalizations about except that two criteria must always be recognized. First, it must be realized that objects of greatly differing size will be exhibited by the museum and that good proportional and scale relationships between the objects and their surroundings are essential. A medieval sculpture which was meant to adorn an interior column of a Gothic cathedral may require a distinctly grand and vertical space for its display, while

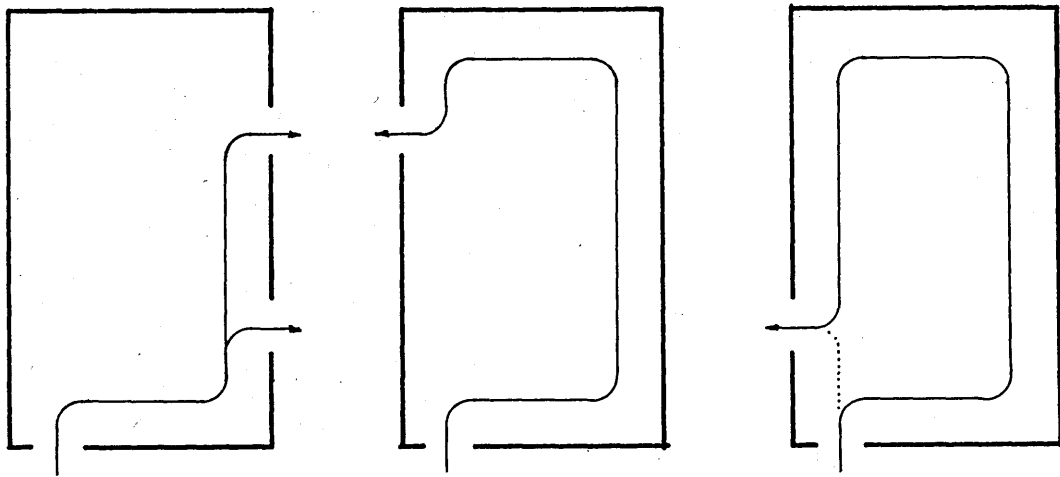
a collection of Greek vessels might best be seen in an intimate and neutral room which would encourage concentration of the viewer's attention on the details of contour, proportion and decoration.

Second, the museum sin of permitting monotony to overtake the visitor must be eliminated. Anyone who has ever visited a museum knows how a string of identical rooms, even though containing contrasting specimens, can make short work of whatever enthusiasm the visitor may have had upon entering.

Translated into rules for the museum designer these two factors indicate simply that spatial variety is necessary in the exhibition areas, both for sensitive display of objects and for the psychological comfort of visitors.

Studies conducted by Mildred C B. Porter at Yale's Peabody Museum of Natural History in the 1930's proved that the positions of entrances and exits in an exhibition room are critical in determining the effectiveness of exhibits and the length of time a visitor is likely to spend in the room. It was discovered that the natural tendency of about 80% of of the people is to turn to the right upon entering an exhibition room and that, consequently, displays located to the right of an entrance usually receive far more attention than those located to the left. It was also shown that short

circuiting is likely to occur if the exit from a room is too near its entrance or if it is in some way emphasized so as to unduly attract the attention of persons entering. The accompanying diagrams show the relative desirability of several possible entrance and exit schemes for exhibition rooms.



Insofar as possible these natural tendencies should be recognized and taken advantage of to insure the greatest possible amount of viewer exposure to the displayed material.

## 2. Exhibition Techniques

The subject of exhibition techniques is one which has more bearing on the work of the museum director than of the museum architect, but there are certain basic ways in which the

architect is responsible for the success or failure of the exhibitions which will be installed in his building. The key word in this discussion is flexibility -- the kind of flexibility that will allow the museum director great freedom to exercise his creative imagination. Attaining this flexibility in a museum requires of the architect an understanding of the principles of exhibition design and imaginative handling of the architectural elements which will permit and enhance good exhibition design.

The first consideration which should influence the museum architect in this respect is structure. It is highly important that the structural system in a museum building be one which does not "get in the way," either physically or psychologically, of the exhibitions. For example, an exhibition area which has many intermediate columns will seriously limit the possibilities for exhibition layout. In addition a structural system which is too spectacular or has too much intrinsic interest will attract attention that would better be directed toward the exhibits. The architect must be imaginative enough to foresee that the museum director may desire to install an exhibition which would make unusual demands on the structure of the building. For instance he might find it desirable to suspend an entire exhibition from the ceiling, and it should be possible for him to do so.

A second important consideration is the possibility of easy division and modulation of space within the exhibition areas. The galleries should be designed to be readily divisible by a system of panels which are light, easily assembled, and capable of being stored compactly near or in the exhibition areas. If the museum is to be a changing and evolving thing the machinery of change must be well-oiled and must afford no excuse for apathy or inertia.

Third, the architect must realize that the exhibitions may not be composed of just traditional painting and sculpture and that there may be displays which would have very specialized power and lighting requirements. Changing patterns of light on a surface or volume, projected images of all kinds, electrically operated mobile sculpture -- these are only a few of the many possible kinds of untraditional exhibits that might be shown. It is therefore essential that light and power be readily available at any point in an exhibition space without having to resort to temporary or jerry-built constructions or extensions.

### 3. Lighting

The subject of light in museums is a most complex one and one about which opinions are numerous and conflicting. It must

suffice here to mention some of the most basic considerations, point out some significant factors involved, and, for the purposes of the design to follow, adopt specific viewpoints where several opinions are possible.

There are still strong opinions in favor of the predominance of natural light or of artificial light in museums, though the artificial light adherents seem to be gaining. Both types have limitations as well as advantages. Natural light is difficult to control and direct, often requires costly skylights or other constructions, and is not available at night. However its warmth and subtle variations are psychologically good for the museum visitor. Artificial light is usually uniform and unvarying (though not necessarily so), tends to eliminate all contact with the outdoors, and is not generally conducive to visitors' comfort, but it offers limitless possibilities for controlled direction, intensity, and color temperature. The best museum experience is probably one where both kinds of light are used in different rooms to provide variety for the visitor and to afford a wide range of possibilities for good lighting of differing objects and exhibitions.

Nearly everyone concerned agrees that separate attention is needed to the problems of lighting museum spaces and of lighting the objects within them. The light which gives form

and articulation to the exhibition space cannot concurrently perform the task of illuminating objects in a manner conducive to their perception and enjoyment. Therefore, it is usually necessary to think in terms of two distinct lighting systems in a given space. The practice of individual lighting for single objects, particularly paintings, has become highly developed, with the present availability of cheap projector fixtures which are focusable and whose beam can be masked to any desired shape.

The intensity of incident light and the associated brightness of objects on which it falls should be capable of control by museum personnel. It is obvious that all objects displayed should not be uniformly lit and that exhibition spaces should not have the same general intensity level for all exhibitions. With artificial light such variations are simple, and in daylight spaces it should be possible, by architectural means or mechanical devices, to vary the intensity of light which enters or to cut it out entirely.

The related concept of brightness contrast must be taken into account. Simply stated, it is a fact that if the brightness ratio between an object and its background is either too small or too great it becomes difficult or impossible to see the object. If the ratio is less than 1 to 3 the object and background tend to merge. If it is more than about 1 to 10 glare



results and the object is likely to be obscured. Brightness ratio can be controlled by carefully choosing wall finishes and colors that have proper diffuse reflection factors.

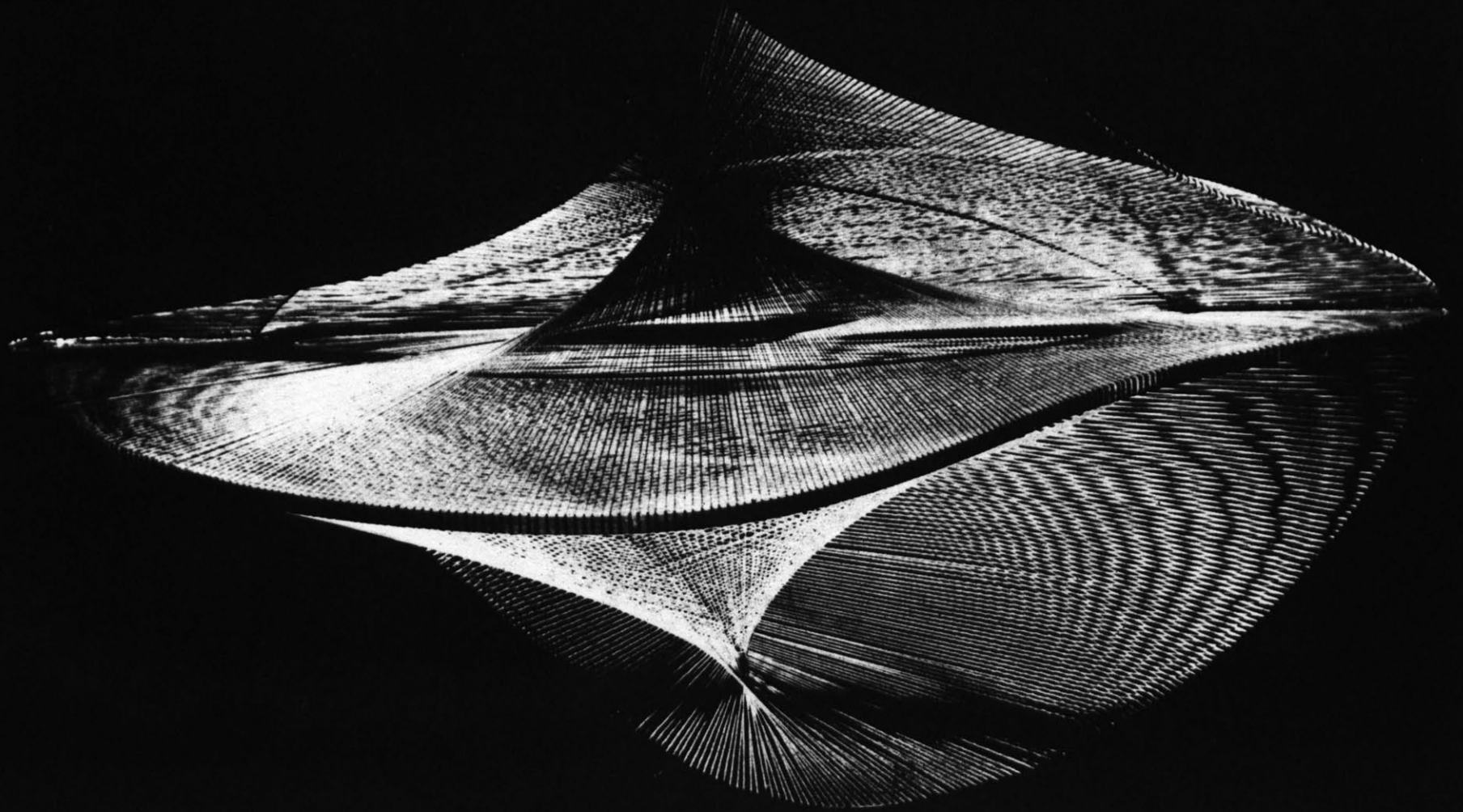
The color temperature of natural light varies tremendously from day to day and in different positions on the same day. Light from the north sky on a cloudy day is strongly bluish or "cold" while direct sunlight contains much more of the red or "warm" end of the spectrum. On the same sunny day the light in the shade of a tree is much less red. Human beings are used to such variations and are likely to become uncomfortable if confined too long in a space where they are absent. To compensate for the absence of natural variation it is becoming the practice in museums to provide a general flux of light of "medium" temperature (approximately 4500° Kelvin) which is punctuated by spots of "warm" light in the range of 2800° to 3100° Kelvin. This seems to be a very elementary use of the possibilities of color temperature variation and such practices are surely capable of great extension and development.

The direction from which light falls on an object is of great importance in perceiving the object. Traditional easel painting is nearly always done with light coming from above or from one side, and such paintings when lit from below (as they sometimes are in galleries) appear strange and unnatural. Most sculpture looks best in light that comes from above at an

angle of from  $15^{\circ}$  to  $45^{\circ}$  from the vertical. Precisely vertical or horizontal light on sculpture produces unnatural shadows and usually does not do a very good job of modulating three-dimensional forms. Sculpture should normally be lit by two sources -- a strong and sharp one for the principal illumination and a less strong and more diffuse one to soften the shadows and reduce excessive contrasts. The lighting in the new museum should take into account these established and proven practices as well as provide systems flexible and extendable enough to serve new art forms and exhibition techniques.

Specular reflection results when a smooth, non-diffusing surface is illuminated by a light source near the horizontal plane of the viewer's eye level. In this situation the object acts as a mirror and the eye sees only the light source. Thoughtful consideration of angles of incidence and reflection when designing exhibition spaces can virtually eliminate troublesome specular reflection.

Finally, the methods of lighting and the positions of light sources should not be obtrusive or outstanding in themselves but should do their job with as little fanfare as possible. The mechanics of lighting systems should at all times be subservient to the results they produce.



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APPENDIX B -- A PROGRAM FOR A LIVING MUSEUM FORMULATED BY  
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Problem II: A LIVING MUSEUM

Issued: 11/14/47

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Jury: 12/18/47

L. C. Currie

J. C. Harkness

C. Nagel

The city of Cambridge plans A Living Museum - a problem posed by Alexander Dorner, Brown University, November 14, 1947.

1. Why a LIVING Museum?

Present art museums are mostly considered or nicknamed mausoleums. They do not seem alive, because they act as shrines of eternal values. The heaven of the traditional art museum consists of arrays of galleries and period rooms. Here we face the works of art of all times and regions. They are presented to us in detached imperturbability as holy relics containing the miraculous vision of the Divine Beauty.

Consciously or unconsciously modern man resists such a philosophy. The galaxy of models of timeless truth and beauty



presses on him like a tombstone. We know from our scientific education that life, including man's mental activities, cannot be squeezed into any static pattern of truth or beauty. Life is "alive" only because it is constantly changing its very essence, and that change has an inner coherence, because the mutual penetration of all living forces results in their mutual transformation. The result we call evolutionary growth.

We live our daily lives according to this philosophy. All modern activities, including modern architecture, "live" because all their ideas and means change by improved experience. The mental faculties of the architect "grow" by transforming obsolete faculties into new ones. Only traditional humanities are still trying to stick to the belief in an Adam in us. They try to tell us that we shall never be able to change the ideas or faculties of the divine soul that was blown into that Adam. It is on account of this obsolete philosophy that the traditional art museum reveals to us in galleries and period rooms symbols of the eternal, always equally valuable, spirit of a timeless (Adamic) man. Man has the idea of beauty and he has the divine faculty to create it. That makes the art museum dead.

How can it be made living? Only by introducing what careful observation has been showing for a long time: that the so-called "works of art," too, speak to us the language of growth.

Mental growth creates the amazing "inventiveness," the ever new visions of reality, that we falsely call the (aimless) variety of styles. The endless variety in man's visual production is created by the ceaseless and omnipresent need and urge to grow. Inside that urge pulses the creativeness of life, which changes man's mental tools, the very identity of his mind and of the reality which this mind sees. The past lives in us as an irresistible urge to go on growing. There is a unity between past and future; but it is an entirely dynamic unity of self-transformation. The traditional museum is dead because it is still trying to unite past and present in a static way, by erecting never-changing ideals of beauty or never-changing aesthetic faculties and imposing its products upon life as timeless models. Our new Museum could be "living" if it succeeded in creating this new dynamic unity of growth that turns the past into a driving force toward a better working future.

The following is a description of the needs of such a "working" Museum. We assume that the director is free to plan according to professional experience and that his hands are not tied with the obligation to display bequests of random collections of "beautiful" works of art.

## II. The Practical Needs of a LIVING Museum

The Museum should be able to cope with a shock-attendance of 1000 people at openings of exhibitions. (Important particularly for the size of the reception hall and tearoom.)

- A. Main Floor (The whole Museum, except for some items mentioned below, should be on the ground floor.)
  - 1. Outside the Reception Hall
    - a. Revolving glass door
    - b. Electric eye checking the attendance
    - c. Swinging glass door opening into the reception hall
  - 2. Reception Hall
    - a. Hat check
    - b. Reception desk, extended into counter for the sale of guides, publications, and reproductions
    - c. Directly accessible: separate washrooms for men and women
    - d. Entrance and exit doors of permanent exhibition lying close together
    - e. Entrance door to area of changing exhibitions of contemporary content
    - f. Entrance door to area of changing exhibitions of historical content
    - g. Entrance to lecture hall

- h. Entrance to tearoom
- i. Entrance to corridor leading to offices, studios, shops, and storerooms
- j. Entrance to staircase to basement and possible later second floor
- k. Ample benches along the walls

3. The Permanent Exhibition

is the genealogical tree of our present visual language. Its trunk and ramifications convey to the visitor the evolution of man's reality and thereby the driving forces of our present. It illustrates the evolutionary growth of our cultural forces focused on the growth of man's visual language.

Since it has to simplify and also to freeze what is actually a totally moving and very complicated process of interpenetrating transformations, it will first consist only of a trunk, i.e. of a succession of about ten rooms. Ample room should be left for a later addition of branches to that trunk.

Every one of these rooms represents the peculiar world of the relative phase of growth. Every one is completely different in shape, light, and treatment of its boundaries. (The "normal" four walls appear almost nowhere.) Therefore they should have no "architecture," that is, they should have no fixed

walls. They should allow for skylight and artificial light from ceiling and all sides. They should further allow for transparencies representing architecture, gardening, and planning, which can be turned on and off; for loudspeakers and earphones (to hear the poetry and music of the period).

Every room contains also the original "works of art" set into their relative milieu of reality.

None of these "rooms" should have a direct connection with our present reality (through windows or doors). Only the rooms of our latest movements, where the evolutionary flow falls into our present, should have windows. Every room has a small anteroom with a text explaining the experiences that led to the particular picture of the world represented in the following room. The average area allotted to the rooms would be approximately 30' x 30'; the area for the room of our present should be larger (ca. 50' x 50'). The anterooms could have skylight for biological relief of the visitor.

We like to emphasize again that this Permanent Exhibition has no static permanence whatsoever. It should remain entirely flexible (a) for external extension toward the future and for additional branches; (b) for the improvement of the representation of the past by increase in knowledge, understanding and technical means of conveying both.

The permanent display has two exits, one into the Reception Hall and one into the Area of Modern Exhibitions, which is separated from the Area of Historical Exhibitions.

#### 4. Changing Exhibitions

The permanent display emphasized the temporal development -- that is, so to speak, the vertical line -- of man's artistic growth. The changing displays emphasize the horizontal line of that growth by spreading out into detailed representation of specific historical periods or specific fields of past and present activities.

##### a. The Area for Changing Exhibitions of Contemporary Movement and Problems

should have direct contact with the outside world through glass walls or large windows and skylight. This contact should also be visible from the outside by day and when opened at night. There should also be artificial light from the ceiling and all sides. The construction should again give full freedom to the internal arrangement of the exhibitions and allow for heavy material to rest on the floor and to be suspended from the ceiling (since the walls, the traditional carrier of heavy objects, have disappeared). The "architectural" character is given by the changing exhibition itself.

The size of this exhibition area is about 120' x 120'.

- b. The Area for Changing Historical Exhibitions should be separated from both the Modern Room of the Permanent Display and the adjacent area for Modern Changing Exhibitions. This area (120' x 120') -- again allowing for a maximum of inner flexibility and the same facilities for placing and suspending heavy material -- should have no optical contact with our present outside world. It should rely entirely on occasional skylight, but mostly on artificial lighting.

5. The Lecture Hall

should have 500 fixed seats and space for 100 emergency seats. It should have a desk on a platform that runs the full width of the hall. Behind the desk should be a screen that provides for three slide projections to be shown side by side or for moving pictures. On the opposite (rear) wall should be a separated room or balcony containing the projectors. The seats are to be arranged in amphitheatrical order.

6. The Tearoom

should have a small pantry with running cold and hot water. It should hold about 250 people.

## 7. Offices, Studios, Shops

The director's room should also allow for space for the meetings of the Museum's staff and guards, i.e. for 15-20 persons.

Ante- and reception room for director's secretary

Seven offices for rest of staff and secretaries

Adjacent and accessible through the same corridor:

The studios of restorer and photographer and the shops of two carpenters, two painters, one electrician, and one plumber. The noisy shops should be separated from studios and offices. The best way to do this might be by placing the storeroom between shops and studios. All offices, studios and shops should be on the same floor as the permanent and changing exhibitions.

## 8. Storerooms

The storage area should be 120' x 30'. It should be divided into an area for permanent exhibition material and an area for the material of changing exhibitions. Storerooms as well as shops should be accessible through overhead doors to unloading trucks.

## B. Basement

1. 12 studios for classes of about 20 with facilities for painting, sculpturing, etc.



2. The heating plant
3. The air-conditioning system for the areas of permanent and changing displays, the permanent storerooms, and the possible future second floor

C. Second Floor

The possibility of a second floor above the offices, studios, shops, and storerooms should be foreseen for permanent study collections that might accumulate through gifts and bequests.

These rooms should have skylight and artificial light.

APPENDIX C — AN ARTICLE FROM THE CHRISTIAN SCIENCE MONITOR  
OF AUGUST 3, 1959

## 'Art in the Academic Curriculum' at Addison Gallery

By Dorothy Adlow  
Andover, Mass.

A visit to the Addison Gallery of American Art, Phillips Academy, Andover, is invariably profitable. Bartlett Hayes, Jr., arranges exhibitions in an original and instructive way. An hour spent in the gallery affords not so much passive pleasure but provocative thought.

Spread forth is an assemblage of arts or artifacts, of past or of present, all related to a basic thesis. This is an occasion to think, think, think. Mr. Hayes' elucidating placards and labels may exact concentration, but the effort, even on a hot, summer day, is a rewarding one.

The title of the summer exhibition is "Art in the Academic Curriculum." This material comes out of and relates to the need and experience of the academy, the students of which are of high-school age. How much is absorbed, and how far do the more alert, more receptive young folk go when they are guided by intelligent and cultured teachers?

The boys at Andover have an initial advantage. On the campus is a museum of American art. They come in direct contact with paintings by foremost Americans, and also significant work by less known or even anonymous performers. They come to know the names, the typifying styles, the native subjects. The Addison Gallery em-

braces the new and the old, the modern and the traditional.

The display divides into several sections. It shows the manifold activities of the art department. It helps to bridge the gap that has been widened through heated arguments concerning the relative significance of studies in humanities as opposed to natural sciences.

Mr. Hayes reduces the area of division and shows how the arts reflect and even enhance scientific pursuits, creating a language of symbols to reveal new concepts about the nature of the physical world.

One gallery is installed with pictures and sculptural constructions, and this particular group is called Art and Science. A feature is the use of modern materials for conveying pictorial and sculptural ideas. For example, "Linear Construction" by Naum Gabo is contrived with plexiglass and plastic thread.

"Twisted Planes" by Moholy-Nagy, put together with plated steel rods, plexiglass, and chrome, conveys in its open surfaces an expression of energy, movement, and change. Corresponding translations of inner forces of nature are to be found in paintings which gain advantage in the use of color, but lose for the lack of three dimensions in which to send forth paths of force.

Another exhibit, "Seed Dispersal," wrought in engraved and carved plastic, has a changing design that is conditioned by a changing light. In other ways

scientific exploration is reflected in photography, in which the students are encouraged to make discoveries and to discern unusual and revealing relationships in shapes and textures. Photography has become an adjunct for the artist in a number of ways; also it can be an artistic end-in-itself.

Teachers at Andover put problems of form right into the hands of the students, who carry out a variety of exercises with paper-bending by means of which they devise new structural forms, from the honeycomb to the vault. Abstraction is not a theoretical enterprise but something that grows up in one's own hands through a combination of logic and imagination. These boys, in making manifold three-dimensional designs, gradually reach the basic principles by means of which modern architects operate.

In the next gallery Art and Language are allied. The medieval crafts of tapestry and enameling are illustrated, and explained in French, texts that are not too far beyond the reach of the undergraduate.

Another exhibit is called "What Is Building?" Explicit illustrations, simple but powerfully graphic, set forth the fundamentals of building construction. Made clear are the basic elements of post and lintel, of cantilever, arch, and vault.

Art and History constitute another element. From the per-

manent collection of a number of examples are chosen, not merely to illustrate American history but to give evidence of American attitudes. There are pictures showing the love of nature, pictures of a fantastic character reflecting the American imagination, and those that are genre and satirical.

"Art in the General Studies" demonstrates the taste on the campus, for it includes pictures chosen by various students, ostensibly their favorites. Obviously these boys are not indoctrinated in a specific direction. Obviously, also, some of them refuse to assimilate sophisticated ideas, as they favor popular items. This is the way it should be, for it would be regrettable if undergraduates became snobs.

One of the most interesting displays consists of the drawing and painting of these students. In general, work of those in their early teens runs to the banal.

Not so the Andover drawings that show a respect for craft, an interest in design, and even a skill well above the average. Let us bear in mind that these are general studies, and very few of these students intend to carry on in the field of art. Nothing but good can come through being brought in contact with principles which help and nurture the imagination. These are stepping stones toward discovery, toward richer realization of the life adventure, wherever it may lead.