THE RICE INSTITUTE

MUSEUMS: A STUDY OF PAST THOUGHT AND MODERN TRENDS

by

John H. Brenneman

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In an upward movement of industrial art it is essential that the museum become a live factor. It must develop machinery to deal with the manufacturer, designer, and salesman. It must direct its attention to modern, present-day needs and put forth active effort and carefully planned policies to meet them. Preserving the past is not sufficient in the museum of tomorrow.

--Charles S. Richards
former director,
American Association of Museums.
The Mundaneum—its purpose and features...Thebes....Ptolemaic Alexandria....early Greek arts and the Hellenistic collection origin...Roman "prestige" collecting...the role of the medieval church...Renaissance art galleries....the northern Wunderkammer....royal house cabinets...the earliest public museums...Colonial American spirit of inquiry....Mr. Arnold's museum...Barnum and the Peales...buildings from the great expositions............pages 1-9.
A gallery at the Louvre


Museum of Contemporary Arts
Houston, Texas
In the late 1930's, Paul Otelet conceived an idea for a world center of learning. He and Le Corbusier worked out the plan for a Mundaneum, a universal museum, library, and headquarters of the intellect, which was to be built adjacent to the great League of Nations palace in Geneva. This vision represented the greatest effort since the days of the Ptolemies to include art, religion, science, philosophy, and history into a systematic portrayal of the scope of human knowledge.

The physical plan had for its focal point the World Museum, built in the shape of a stepped pyramid. The ascending levels were to represent the ascending levels of civilization, our level at the top, an ever-widening vista of the past spreading over the lower levels. Besides the museum, the Mundaneum included a library, a research center open to all the great universities of the world, laboratories, zoological and botanical gardens, gymnasium, and pavilions for international expositions.

Why was the plan conceived? It would show the ascendance of mind over matter and of the spiritual over the material, the emergence of the much-discussed ideals—truth, beauty, goodness, faith, hope, charity,
justice, liberty, and equality—in our civilization.

The Mundaneum was never built. Perhaps it is better that way. We are far from controlling our material life in spiritual perfection. We are a long way from any degree of mass education which will bring such an ideal within reach. A Mundaneum might attempt to bring the heights of learning to a few people, but what about the others who can neither imagine such an idea nor grasp the significance of what they see all around them? What has pointed the museum to its present state of development?

At Thebes there is a room with an entry which bears the inscription, "A Place of Healing for the Soul." It is not a temple. It was a museum kept by Rameses II—as also by other Pharaohs—to house a collection of offerings which held the power to placate the Gods.

The word, museum, stems from Greek times when it referred to a temple of the Muses. What we think of as a museum seems to have originated in Alexandria in the Ptolemaic period. Ptolemy Soter's great university there contained collections of plants and animals for study purposes.

In early Greek civilization, there were no art collectors. Art was either meant for offerings to the
Gods or used as public wealth, admired for its own beauty rather than its value. Until Alexander the Great's time sculpture was often buried along with earth and debris to clear away war damages and begin a new temple or building. The artist was recognized only as a common laborer—one of the lowest forms of citizen.

After Alexander's fall, Hellenistic monarchs, notably Attalus and Eumenes II of Pergamum, began to carefully collect and preserve the classic ruins. They were the first collectors.

As Greek influence upon Rome grew, the fashion of collecting also prospered. Sulla, Caesar, and Cicero stripped the colonies of their art forms. Caligula brought art back to Rome and held auctions, forcing his followers to bid fat prices for his plunder. Eventually, every leading, prosperous Roman citizen became a collector. Collecting became a sign of social prominence and art was evaluated in monetary terms like any other economic goods. The Roman civilization died, but the art remained to inspire the Italian renaissance.

During the dark ages the church became the art collector and guardian of past cultures. Art, in a manner of speaking, went underground to be stored away in monastery crypts and catacombs. In this period the
church judged art for its own value as art, serving as almost the only link between the earlier ages and the Renaissance.

With the Renaissance came the art gallery. With the evidences of past Roman glory still standing as a constant influence and an accent on humanism brought about by the nature of the Renaissance, art was interpreted in individual pleasure. The Italians lived for pleasure; they were only mildly interested in religion and ethics. Art was somewhat the result of social regeneration rather than being used as a tool to stimulate that end. It was a part of everyday life. The pattern thus established becomes one of the objectives of today's planning in art museums. The problems of reconciling this objective to our scientific-mechanical civilization will reappear later in this discussion.

The oldest Renaissance collections are those of Cosimo de Medici, the Vatican classical art collections, and the Lateran collections of Christian art. Coin and gem collections of rulers and nobility were the fourteenth century beginning of the art museum. Busts and statues came later, while pictures and drawings were not included until the seventeenth century.

Up to this point we have seen museum development
treated from the viewpoint of art and religion. The scientific, natural history ideas have only once appeared, in the Ptolemy museum at Alexandria.

The gradual spread of enlightenment in northern Europe to a crude, raw culture without the background of Roman and Greek antiquity expressed itself in the "wunderkammer," or wonder chamber. Contrast this word with the Italian "galleria," or formal gallery, and the intense contrast between the northern naivete and the southern, taken-for-granted social assurance may be easily grasped. No culture can be built up from a vacuum; the wunderkammer supplied a starting point for the long social climb of the northern peoples. Here was the fertile field for the museum as an instrument of social regeneration. Typical early collections included such items as sea shells, fossils, minerals, stuffed alligators and elephants, silver, gold, and glass work, a little painting and statuary, and "manna which fell from Heaven in a famine."  

Augustus I, the Elector of Saxony, had "a series of portraits of Roman Emperors from Caesar to Domitian, said to be copies of originals done by Titian from the life."  

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2. Ibid.
We must remember that these collections were not in any sense public. They were purely private endeavor kept for personal satisfaction or prestige. This condition existed long after the direction of museum development began to be clearly indicated by sixteenth century royal collections. Seventeenth century nationalism brought intense competition among the Hapsburg, Stuart, Bourbon, and other royal families in amassing collections. The connotation of royal prestige and authorities soon came to be a part of these collections, one more spur to the common public acceptance of the idea of drawing upon past cultures in social development.

It remained then for the French Revolution to introduce the interpretation of the museum as a public institution. Today we find this interpretation nearly universally accepted. Actually the first museum to open its doors to the public was the British Museum, formulated from the cabinet, or collection, and library of Sir Hans Sloane. In 1753, thirty persons per day were permitted admission by tickets. In 1810, the museum held regular open hours three days a week; by 1879, it was open daily. The Louvre was open only to certain scholars until Napoleon's time. The National Gallery in London was opened in 1824. The Louvre is a
perfect example of the European practice of simply setting up or leaving collections in abandoned palaces to gather dust. There were no problems such as storage or display methods. The collections were there; the public was allowed entrance to see them, and that was all.

Museums in the United States have followed through a quite different train of events. The early 1800's, saw this country becoming an important new market for European goods and a rich source of raw materials, as well as a new center for tourist trade. The much-discussed American spirit of pioneering inventiveness expressed itself in a more or less scientific approach. Especially in comparison to European thinking, this American viewpoint stimulated a revitalized attitude toward museum planning. The American museum did not become an abandoned palace used to store and classify relics of past cultures; the United States had no palaces or past cultures. Instead, it grew up on the idea that it should be, along with our government, an institution of, by, and for the people. This philosophy is well expressed in the announcement of the founding of the Metropolitan Museum of Art on January 4, 1870. It was founded to afford "to our whole people free and ample means for
innocent and refined enjoyment and also supplying the best facilities for practical instruction and for the cultivation of pure taste in all matters connected with the arts."

Well before the American Revolutionary War, a Mr. Arnold of Norwalk, Connecticut, formed a museum of miscellaneous collections, largely scientific in nature, which could be seen by the public upon payment of a fee. It is marked as one of the earliest museums in this country and as a pioneer in the new scientific accent in museums. It was of the same type as a museum at Manchester, England, founded by Sir Ashton Lever in 1775, and one founded by William Bullock a little later in Liverpool, and was later sold to the Lever museum. This scientific viewpoint was further encouraged by the data taken from exploration and surveys across the country, such as the Wilkes Exploring Expedition of 1838-42, and the government surveys for a Pacific railroad which helped to found the United States National Museum. It was a perfectly natural step from these commercial expeditions to purely scientific ones.

Another figure who contributed backhandedly to the scientific museum idea was P.T. Barnum, who had some really valuable specimens in his amusement museum and was one of the first to display live fish.
In 1785, Charles Willson Peale, and his son, Rembrandt, established the Philadelphia Museum. This museum, from its inception, was more scientific in its aims than the Barnum or Boston amusement museums. Many of Peale's ideas about the educational value and arrangement of collections were far ahead of his time. Peale's treatment of painted backgrounds and props such as nests and eggs in bird groups was the germ of the habitat settings of modern natural history museums. Both Peales were well known Colonial portrait painters, and they exhibited their work regularly in their museum.

The great expositions have had much influence on museum development in the United States. The Field Museum and the Museum of Science and Industry, are a result of the Columbian Exposition of 1893. The United States National Museum is housed in a building left over from the Centennial Exposition of 1876, and the St. Louis Art Museum inherited its building from the Louisiana Purchase Exposition of 1904.
PART ANALYSIS

Status of today's museums...methods of classification...the museum in western culture...confusion in public opinion. Progress, lethargy, and revival in the 1800's...European leadership and philanthropy...public estrangement and the Chicago school...the museum's position today...its functions and activities:
1. Collections..."taste," acquisitions
2. Research...fitness and restrictions
3. Publishing...minimal...limitations
4. Lectures, movies, seminars
5. Radio
6. Local competitive programs...community centers...personal relationship
7. Organized tours...Commercial consultation
8. Social functions...taste
9. The art school, importance, courses...Financing...methods...tax support
10. Collegiate museums...locations...uses
Basic policies...public challenge...
Specialization...types...pages 41-44.
The William Hayes Fogg Art Museum
Harvard University
The William Hayes Fogg Art Museum
Harvard University
Today's museum expansion has been compared to that of the library fifty years ago. From a very slow beginning, museum expansion has blossomed in a curve that closely resembles a parabola. The latest count would probably show that the number of museums has doubled in the period since 1950. As is shown on page 12, there were 2,489 museums of all kinds in the United States in 1950. In the ten years prior to World War II, new museums were being formed at the rate of one every week. It is thus safe to guess that, deducting four war years from the figures, there are in the neighborhood of 2,850 museums in the United States in 1950. It is interesting to note here that a larger and larger proportion of the new museums are going into buildings designed and built for them. The investment in buildings, equipment, land, endowment, and collections amounts to three or four billion dollars. This outlay was visited in 1954 by over fifty million people.

There are several methods of classifying present-day museums. Lawrence Vail Coleman, director of the American Association of Museums, has formulated two means of classification. One deals with the area or group served by the museum, and breaks down into the following list:
1. Public (usually local)
2. State
3. National
4. School and school system
5. College and university
6. Private
7. Company
8. Children's
9. Historic house
10. Park (trailside)
11. Library exhibits
12. Sub-museums

It will be noted that this system of classification is used in the table on page 32. The other much more widely used classification breaks down to:

1. Art
2. History
3. Industry
4. Science
5. General

This is similar to an earlier list compiled by Dr. G. Brown Goode which follows:

1. Art
2. Natural History
3. History
4. Anthropology
5. Technology
6. Commerce

Dr. Goode also suggested a means of area classification which, for most purposes, is easier to use than that mentioned above. He mentioned just four divisions:

1. National, local, or city
2. College or school
3. Professional or class
4. Special research

(11)
### NUMBER OF MUSEUMS IN THE UNITED STATES AS OF 1938

<table>
<thead>
<tr>
<th>Type</th>
<th>Art</th>
<th>Hist.</th>
<th>Indus.</th>
<th>Sci.</th>
<th>Gen.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public</td>
<td>224*</td>
<td>358</td>
<td>3</td>
<td>72</td>
<td>60</td>
<td>722</td>
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<tr>
<td>State</td>
<td>3</td>
<td>42</td>
<td></td>
<td>12</td>
<td>15</td>
<td>72</td>
</tr>
<tr>
<td>National</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>School and school system</td>
<td></td>
<td>3</td>
<td>1</td>
<td>23</td>
<td>10</td>
<td>43</td>
</tr>
<tr>
<td>College &amp; Univ.</td>
<td>115</td>
<td>82</td>
<td></td>
<td>501</td>
<td>10</td>
<td>708</td>
</tr>
<tr>
<td>Private</td>
<td>5</td>
<td>9</td>
<td></td>
<td>13</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>Company</td>
<td>4</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Children's</td>
<td>2</td>
<td></td>
<td></td>
<td>6</td>
<td>8</td>
<td>16</td>
</tr>
<tr>
<td>Historic house</td>
<td></td>
<td>664</td>
<td></td>
<td></td>
<td></td>
<td>664</td>
</tr>
<tr>
<td>Park (trailside)</td>
<td></td>
<td>16</td>
<td></td>
<td>54</td>
<td>2</td>
<td>72</td>
</tr>
<tr>
<td>Library exhibits</td>
<td>21</td>
<td>41</td>
<td>1</td>
<td>7</td>
<td>20</td>
<td>90</td>
</tr>
<tr>
<td>Other sub museums</td>
<td>8</td>
<td>33</td>
<td>3</td>
<td>18</td>
<td>2</td>
<td>64</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>387</td>
<td>1235</td>
<td>30</td>
<td>707</td>
<td>130</td>
<td>2489</td>
</tr>
</tbody>
</table>

* Includes 47 W.P.A. Art Centers

There are 26 public museums with income of more than $100,000; 72 with more than $25,000; 203 with more than $5,000; 453 with more than $1,000. Of 269 with less than $1,000, 200 are historical societies. Figures for income do not include state or national museums.
GROWTH OF INVESTMENT IN MUSEUM BUILDINGS

<table>
<thead>
<tr>
<th>Year</th>
<th>Num. of bldgs. to date</th>
<th>Total investment to date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1814</td>
<td>1</td>
<td>$18,000</td>
</tr>
<tr>
<td>1824</td>
<td>2</td>
<td>$23,000</td>
</tr>
<tr>
<td>1834</td>
<td>3</td>
<td>$73,000</td>
</tr>
<tr>
<td>1855</td>
<td>4</td>
<td>$373,000</td>
</tr>
<tr>
<td>1860</td>
<td>5</td>
<td>$1,035,000</td>
</tr>
<tr>
<td>1870</td>
<td>8</td>
<td>$530,000</td>
</tr>
<tr>
<td>1880</td>
<td>20</td>
<td>$4,519,000</td>
</tr>
<tr>
<td>1890</td>
<td>33</td>
<td>$7,914,000</td>
</tr>
<tr>
<td>1900</td>
<td>68</td>
<td>$18,417,000</td>
</tr>
<tr>
<td>1910</td>
<td>108</td>
<td>$36,082,000</td>
</tr>
<tr>
<td>1920</td>
<td>157</td>
<td>$55,420,000</td>
</tr>
<tr>
<td>1930</td>
<td>255</td>
<td>$118,823,000</td>
</tr>
<tr>
<td>1938</td>
<td>380</td>
<td>$181,312,000</td>
</tr>
</tbody>
</table>

These figures include only buildings specifically designed as museums. Not included are non-museum buildings occupied by museums, remodeling, or museum additions of any kind. All buildings in the table were in use in 1938.
Museum expansion in the United States

Figures from charts on pages 12, 13.
We are living today in a highly mobile culture. Our way of life has changed more in the last one hundred fifty years than all the change in recorded history prior to that time. Into the realm of human thinking blundered the sciences, and ever since the seventeenth century we have shown a tendency toward making science the great driving wheel of civilization. At the same time, the museums have been represented as guardians of "culture." The old-time, real values of grandfather's age are the heritage of the museum as a historical institution. We look to the past for security and to the scientific future for rationality and action. Squarely in the midst of this problematic situation is thrown the museum. The university also found itself there, but has somewhat solved the problem by specialization into "technical" and "humanities" categories. The museum has not been so fortunate. For one thing, while its history traces back thousands of years, its development as the institution we know is limited to one hundred fifty years, too short a time to build up a really strong philosophical heritage. The university has answered specific demands. "We need people who can do this or perform that function." The museum's influence is not so direct. Like pure science, its
learning takes devious channels before reaching the great mass of the public.

This confusion has plagued the public and museum officials alike. The public asks what is the value of museums with their vaguely understood pictures, dusty cases of old books, coins, and other impedimenta, and houses where George Washington may have slept. The museum officials try to analyze the public's desires with one eye and oversee their scholarly functions with the other. It is a difficult task. Where does the museum's duty lie? Is it a servant to the public tastes or a research institution? Where do its functions stop and those of the university and library begin?

The nineteenth century thought which fostered our museums was in tune with the American spirit of the day. It is perfectly logical that fresh ideas should come from the unique conditions of a new land. The hand of free enterprise appeared in museums with new methods of display and new subject matter. The early 1800's were fruitful.

As time wore on, a lethargy spread over the new movement. The vigorous young cause which followed the revolution fervor was swamped in the orgy of westward expansion, Civil War, and Reconstruction bitterness. And then into the void slipped the Victorian age, the
restoration of Pompeii and Herculaneum, and the great American capitalistic expansion. There was now a new cause, the Revival period, and there were many philanthropists. The building boom was on, and libraries, college and university buildings, and museums sprouted all over the country in eclectic imitations of Greek temples and Renaissance palaces. The result in museums was a throwback to cluttered, dusty displays of backward-looking archaeological matter piled into gloomy balls of stone. Once again, Europe was the model and the American vision was lost.

The philanthropists were blamed for using money and power to subject their ideas on hapless institutions and to create a compartmental view of art in which the creative impetus was held in contempt. Agriculture, housing, medicine, engineering, transportation, communication, and manufacturing were supposed to take its place. But before condemning them, let us be realistic. The wealthy few were not too much smarter than anyone else; they were simply swept up in a flood of European ideas as was nearly everyone. The Fishs, Sullivans, and Wrights were few and far between, and usually completely without voice. But the endowments were established, the universities founded, and the museums—such as they were—were built. Credit the
philanthropists.

Nevertheless, the patterns were established for art, architecture, and research, and, once set up, the organization is hard to change. The emphasis on scholarly research and European classicism was just a little too much for a people who were increasingly nationalistic and never really understood what had been happening all around them. The museum and its public grew out of touch. Scholars wrote pseudo-scientific dissertations addressed only to their colleagues. Art was placed on a pedestal far beyond the ken of the man on the street who needed and craved it. Artists spoke esoterically of form, composition, impact, and design and condemned the layman for saying he knew what he liked. The great public was "disenchanted;" it felt high-hatted and lost.

The break came in architecture. The Chicago school, the skyscraper, and the Prairie House helped to encourage the swing back to Americanized thinking. The popular magazines have taken the new cause to the people. Where European study was once considered a necessity for the better musicians, artists, and architects, we now look upon our own educators as better. We also think of ourselves as a better-informed public than anywhere else in the world.

What is the situation today? We now have a more
thinking public. We have an educational system and a spontaneous museum movement of which we can be proud. Unfortunately, we are not always quite sure how the museum should fit into our society.
When the Museum of Modern Art brought up the idea that the Companion might collaborate in the presentation of this charming house, we thought it a suggestion made to order for our readers. The house itself, designed by Architect Gregory Ain, was clearly a distinguished successor to other imaginative small home designs which we have shown in the past three years. But there was the added advantage that this house was to be constructed in the museum garden not far from the new Crowell-Collier Building in New York. The museum set to work building the house so that it should be ready to show our readers in this issue, on the same date that the actual house would be open to the public. The Museum of Modern Art-Companion House, shown here and on the seven following pages, will be on view in the garden of the museum at 4 West Fifty-fourth Street, New York City, from mid-May through October. Readers who plan to visit or pass through New York this summer and fall will probably want to go through the house. Museum hours are 12 to 7 on weekdays, 1 to 7 on Sundays. But even without a visit to New York, you can go through our house here on these pages by means of the pictures. First take a look at these exterior views.

Here is a striking example of the increasing co-operation between museums and commercial organizations in selling new ideas, as described on page eighteen. In this case, it is an article in the Woman's Home Companion for June, 1950, which was published too late for mention in the regular text.
Here is a list of functions which have become part of our present-day museum complex.

1. Provide and display collection material.
2. Conduct research.
3. Publish bulletins and articles for magazines and newspapers.
4. Conduct lectures, seminars, and movies.
5. Produce radio programs.
6. Conduct and show local competitive programs, and encourage local art activity.
7. Conduct organized tours for school children and other groups.
8. Assist in commercial undertakings and research.
9. Conduct social programs--tea, etc.
10. Administer art schools and/or classes.

All this activity is usually expected to be produced from private financing, a big job in itself.

This lengthy array of museum activities serves to express the fact that the museum, if it takes up every activity listed, will be spread out too widely to do justice to more than a few. Let us consider these activities individually.

1. The accumulation and display of collection material has been and will continue to be a major activity of the museum. Without this function, we might as well dispense with the museum. As documents of history, collection material provides a universality of expression and genuine reality which can be found in no other medium. Any written word will be colored by the

(20)
desire to express some particular point or opinion, but collection material, if carefully and honestly accumulated, will give a background of objective, noncommittal authenticity.

Here is constituted one of the greatest problems faced by the museum officials. As arbiters of public taste they must carefully pick and choose. What to buy, how much to accumulate, what to do with gifts, and how to discard material are some of the acquisition problems.

What a museum buys is an individual problem, as is the quantity of material to be bought. However, it is a tendency of museums to want to overbuy. Quality is much more important than quantity, especially because there is a concerted effort to stop the indiscriminate expansion of museums. There is no reason, especially for a specialized museum, to grow like an amoeba. Storage problems multiply rapidly, and exhibits become unwieldy for easy inspection.

Gifts are headaches. Too often they have absolutely no connection with the regular collection material. They then burden the storage facilities. Or, worse yet, they may be given in perpetuity with specific restrictions to their location. Museums cannot go on accepting gifts with strings attached. Social and
professional competition make this difficult, but year by year, the problem, in general, is diminishing.

2. One difficulty in discussion of research is that there are no definite solutions to the problem. We can only discuss general principles which must be individually applied to specific problems.

The biggest argument for the research function is that museums are equipped for it. They have a great storehouse of art material. The Metropolitan Museum of Art, for example, has what is called the largest reservoir of art material in the western hemisphere. There at first hand can be studied actual objects taken from five thousand years of civilization. The museums have people in their staffs who are admirably suited for research by virtue of superior training and ability in their fields. The opportunity for research comes naturally in connection with the investigation which is necessary to plan acquisitions and exhibits and to explain them to the public. A final argument for research is that its findings may, through publications, reach a great number of people who could not possibly see the exhibits.

On the other hand, many museums, particularly the smaller ones, do not have the material or budgets to justify such work. The lack of floor space in museums
already far oversupplied with exhibit areas is sometimes the one critical limiting factor. This last point is particularly important, since floor area distribution has nearly always been a major fallacy in museum design.

Many museums, particularly in colleges and universities are in existence expressly for the purpose of research. It is in this area of activity that the research function is best qualified. Public museum directors will find that the increasing pressure of public service will divert more and more research activity to the collegiate and specialized public museums.

3. Nearly all museums do some publishing work, at least to the extent of producing monthly or quarterly and yearly bulletins. Many more museums publish programs of exhibitions in addition to the bulletins. This is about the minimum of publication work which will be done by any museum. Some museums publish descriptive pamphlets or even books on exhibitions. It is argued that all important, well-done exhibits deserve a book; this point is reasonable and proper. However, the bulk of museum writing is amateurish and clumsy, and the point has repeatedly been raised that such work should be entrusted to commercial publishers. The writer believes this to be sound reasoning. Only a few of the largest museums, such as the Metropolitan Museum of Art and the
Museum of Modern Art, are well enough equipped to do good jobs as printers. Some books published by these institutions are much better than most good work from commercial publishers. However, they are also much more expensive. We may reach a general conclusion that most publishing work should be done by commercial firms. Barring special conditions, there is no point in giving valuable floor space to an inefficient and poorly performed function.

Articles are also in demand for publication in newspapers and magazines. These articles are of primary importance because they help to advertise the museum. It is an established point that the museums cannot do without advertising. Such articles, then, especially for magazines, should be produced in cooperation with a professional writer or even ghost-written.

Lectures, seminars, and movies are becoming more and more an integral part of the museum. They are a great source of difficulty in museum planning because they require a great deal of organizational work and preparation, and entail problems in operation of the building to accommodate large groups of people without disrupting other normal activities. It is argued that the museum is usurping activities of this sort, which
should be left in the province of the schools and colleges. This argument, however, is fallacious in one vital respect: the museum does not reach the same public as the colleges and universities. It must present the material in a more popularized version to people outside the regular educational systems. It is this work which very often enables the public to understand what really is to be learned from the museum and creates the desire to come back for more. This repeating public is a very important objective in museum planning, because it is indication of a successful all-over planning program.

5. Radio programs are a new activity. They are not of any great importance in planning since they do not create any problems other than the amount of work they cause to some members of the staff. They are very desirable in adding to the museum's prestige, and they bring a great many people into contact with the work of the museum.

6. The sponsorship of local competitive programs is a field in which a museum can make many friends. A well administered program with reputable judges, whose decisions will be respected, is a great source of local pride. It is always good policy to try to have as many people as possible speak of "our museum;" the feeling of personal association is a very strong tie. But aside
from their value to the local museum, competitions are of inestimable value in stimulating art interest in the public and in discovering hidden talent. The Cleveland Museum of Art regularly sponsors shows to sell work by local artists. This exhibition, held annually, has sold over $300,000 worth of local work in twenty-eight years. The work exhibited includes painting, sculpture, crafts, ceramics, photos, enamels, and other graphic arts. The value of this sort of work cannot be over-emphasized in creating genuine art enjoyment in people and in making the museum a vital part of the local scene. It must be continued and increased.

Similar to this function is the general function of the museum as a community center. John Cotton Dana was one of the pioneers of this work during his directorship of the Newark Art Museum. He showed that the museum cannot scorn its public; the public will sense it and draw back. Instead, the museum must develop its services to the community.

Today we find this idea bearing fruit. In Cleveland, three public school teachers have full-time positions on the museum staff to administer classes for children, high school pupils, and adults. Theater arts are a regular part of the program at the Wadsworth Atheneum, Hartford, Connecticut, and the Museum of Modern Art and
the Metropolitan Museum of Art in New York City. The Museum of Modern Art has been a leader in breaking away from long-standing limitations of tradition.

William M. Milliken, director of the Cleveland Museum of Art, recently made the following statement:

"The museum is one of the most democratic places there is. Everything in it comes together in an abstract world. The spirit of creation, the sublimation of ideas and ideals of individuals who have felt and suffered and believed and somehow given more than themselves move there in clarity and light. Political ideologies, creed, class, race, color fall away. A great museum is a creation of passion, the passion of many individuals, and when it is that, it is an institution which profoundly affects its city. It becomes automatically a center of intellectual and creative life."

The personal relationship to the individual thus recommends the value of competitions and other community activities, not only for Mr. Milliken's reasons, but for the more self-centered—but necessary—reason that good will is a very valuable asset to any museum.

7. Properly planned organized tours for school children constitute no special problem for the physical plant of a museum. The most difficulty would be that they take up a certain amount of the staff's time. These tours often become redundant when there is a well-knit program of co-operation with the school system, such as that in Cleveland's art museum. Tours are never eliminated; nor is that end desirable, in entirety.
Nevertheless, guided tours have the disadvantage that a person may not spend extra time with an exhibit without dropping out of the party. Well designed exhibits with good explanations almost eliminate the need for tours.

8. The museum's position in commercial undertakings is that of a consulting specialist. Industry looks to pure science and art for ideas and formulas to feed its processes. The college and university are already recognized as a source of this knowledge, and the museum is now gaining that same recognition. This tendency is bound to spread as more and more specialized museums come into being and absorb authorities in their fields into their staffs. Such work will be valuable to industry, as well as a source of consultation fees. The fees will, in part, add to the museum's income. Individual fees paid to members of the staff will help to attract competent men to museums which otherwise might not be able to provide satisfactory salaries.

Acknowledgement of this relationship with industry may be seen in this statement by the president of the English National Association of Art Masters:

"As an industrial nation, our very existence, as well as our prosperity, depends upon our commercial enterprise. Therefore, it is our duty to...find out how best Art Education can be brought into closer touch with the requirements of trade and the manufacturer, because when technical skill has done its best, it is the applied art that often determines the market value of the manufactured article. There
is hardly a single marketable commodity that is not touched by art at one point or another before it reaches the purchaser."

9. As a private organization supported by gifts and memberships, the museum has always been subject to social functions such as teas and receptions. They are part of the inevitable work of organizing groups and maintaining ties with them. They are one more means of giving people a personal tie with the institution; therein lies their value to the museum.

10. The growing activity of the art school within the museum is a very timely and healthy field of endeavor. It requires extra floor space and personnel, but the expenditure is well justified in the results to be gained. Several earlier art school references in this discussion have showed how thoroughly its work infiltrates into other activities. Service to the community is one of the biggest new ideas in museum thought. The art school contributes by transforming a passive interest in art into an active participation, the surest way to make any such interest a live, integral part of a person's everyday life. The art school, the exhibit, and educational service make up the constituents necessary to create a balanced, useful program of community service; each one supplements the others in reaching the greatest possible number of people.
The subjects taught will vary with the museum. Drawing, painting, sculpture, ceramics, and weaving are widely taught. Other graphic arts, woodworking, crafts, and photography are also becoming popular. There will be further expansion of the list as more museums take up the movement and specialized work is increased. The vast potentialities with different groups will keep the museum art schools busy day and night.

The art school is also a means of finding ability in groups younger than the usual competition contributors, the people who will form the nuclei of the artistic professions like industrial design, commercial art, window display, and fashion design.
In the discussion of those museum functions, we have seen the question of finance appear again and again. We need no argument to be convinced of the reality of this problem when we remember that only 203 of the 722 public museums had 1958 incomes of more than five thousand dollars.

There are three means of financing museums. One exemplified by the Des Moines Art Center, is to operate exclusively on endowments and paid memberships. Another method is to supplement endowments and memberships with a subsidy from the local or state government. This plan is in use in many museums today. Both of these plans are applied to situations where a large grant of money usually is a factor in the founding of the museum.

The third system, that of support entirely from tax funds, has been tried with remarkable success at Milwaukee and St. Louis. The St. Louis plan shows the structure of this type of finance.

Through the work of a small, civic-minded St. Louis group, the Missouri legislature passed the "Missouri Art Museum Law" of 1907, which read as follows:

"When 100 taxpayers of any city in this state which now has or may hereafter have 400,000 inhabitants or more (This was worded specifically for St. Louis) shall petition the proper authorities asking that an annual tax of one fifth of a
mill on the dollar annually on all the taxable property in such city shall be levied for the establishment, maintenance, or extension of a museum of art for the benefit of the public in such city, and shall ask that the question whether such a tax shall be levied be submitted to the voters of the city at a special or regular election...and if the majority of all the votes cast in such city upon such proposition for and against a one fifth mill tax for the art museum shall be for the tax, the tax specified in such notice shall be levied and collected in like manner with other general taxes of said city, and the proceeds of such tax shall be known as 'the art museum fund'."

The law was voted in by the city of St. Louis, and a self-perpetuating board of nine members, entirely free from political control, was set up. This board today administers an annual fund of about $240,000 from the public treasury.

The arguments for this system are impressive.

1. The theory of tax-supported museums is logical. We have tax-supported schools and libraries, which have long been free from political control. The St. Louis plan has worked successfully for forty-three years.

2. There is increasing public sentiment showing the basic need for art in our society.

3. This constitutes a true "people's museum." At present (1946) tax rates, the average contribution is about twenty-five cents per person per year.

4. The museum is free of the criticism of "snobishness."

(32)
5. There are no "memberships" or special privileges.
6. The public nature of the museum makes it active public property, and newspapers consequently give very good coverage to its activities.
7. Annual attendance has averaged about 325,000 per year over the last fifteen years. This amounts to one in three people in the St. Louis metropolitan area, the largest proportionate attendance in the United States, except for the National Gallery in Washington, D.C.

There are also disadvantages to the St. Louis plan.
1. There is always the possibility of the state law being revoked or nullified by a city referendum.
2. Attempts might be made to divert the fund to political controls.
3. A municipal museum is not likely to attract large endowments. This has been the case with the St. Louis Art Museum.

It appears that the arguments for tax support for museums would outweigh those against it. The combination of this principle with one or both of the other methods should be investigated by museum people in the smaller communities. Perhaps we are seeing the beginning of a trend toward the increasing public support of museums. It is a logical step; schools, colleges, libraries, and even fire departments have taken this course.
We have evolved today's public art museum as an institution which serves by presenting exhibits and educational devices and operating art schools. Other types of museums—science, history, etc.—conform to many elements of this thinking. There are variations, of course, but the basic idea of personalized public interest is still there.

We now consider college and university museums. Here we find a different basic philosophy. The collegiate museum is often socially-minded, but its first duty is to serve its own institution. Some allow no public attendance at all. Others are opened to the public only for limited hours. Some are always open.

There are over seven hundred collegiate museums on four hundred campuses. Some are not easily recognizable as museums. Less than fifty have their own buildings. They are a heterogeneous lot, most often very unimpressive. But they are very important. They are originators of theoretical principles. They test the principles and finally loose them on the public museums, where the ideas, in practical application are proven or killed.

At the University of Iowa, paintings were first hung in the social rooms at the Memorial Union. Law students objected, but now want fine art in their own rooms, too.
The principle of lending prints is not entirely new. It began at Lawrence College, Appleton, Wisconsin, over twenty years ago. Now Bowdoin, Smith, and Beloit Colleges and Harvard, Yale, and Brown Universities are all doing it. Before long, it may be standard practice in public museums.

The Color Slides Cooperative group at McCormick Hall, Princeton University, keeps up with the latest developments in color slides.

We find that collegiate art museums are used increasingly to teach history, social sciences, philosophy, literature, and languages. Here is the idea of art and the art museum integrated with many other vital elements in our culture. It is the basis of thinking which may help to solve our plaguing question, "How are we to live in harmony with the scientific impetus of our age, using science for our own good instead of being ruled by it?"

We think the answer lies partly in the museums, as integrators of science and the humanities.

Museums are changing with our society. The challenge of opportunity is very real for them. As long as the colleges turn out thinking men to go into the profession, the museums will evolve, and we will find ourselves steps closer to the ideal—the museum acting as an absolutely vital link in culture and progress, strong and

(35)
respected, contributing its fair share to civilization.
We have established the sphere of influence of the museum as a changing society, one which is constantly sifting ideas and actions, accepting some and rejecting others. This process, as we see it in every day life, seems to be an infinitely slow crawl, but over a number of years, it acts, and we suddenly start and exclaim, "This thing isn't done any more! Things were certainly different in my day."

Today's biggest change is the change in the basic policy of the museum. The shift has been from the "showing" function inherited from Europe to the "doing" function. Instead of a passive institution the museum has been revitalized to work for its public. We find here an answer to the question of what the museum should be. It is a social, educational institution designed to acquaint people with culture by showing actual, concrete samples, and to teach people how to take such material things and place them in the abstract fields of knowledge and enjoyment in everyday life. The museum is a long-range instrument of balance between eras, a means of social self-analysis. In this sense, it serves a different purpose from that of the school systems, since it is stable, while teaching material and methods fluctuate relatively fast.
Who should it teach? It will indirectly affect everyone. It will directly affect everyone who sets foot inside its doors. It will actively attempt to teach nearly all age groups in fields where regular educational channels fall short, but it will concentrate on children and on adults who have ceased other formal education.

It will become efficient and productive by careful organization, close contact with its public and its needs, and by specializing in its best qualified fields.

As a prognosticator, the chances are that any good, experienced museum director may present a more accurate forecast than this writer. However, a fresh viewpoint of things often uncovers ideas which the more accustomed eye might condemn.

Today's museum directors have largely accepted the public challenge to give it a working institution. A typical example of forward-looking thought is the Houston Museum of Fine Arts, which shows frequent traveling exhibitions, has many seminars, and teaches a full range of art courses. Some of its radio program subject matter may suggest the wide range of art covered in its program:

1. "Art in Automotive Design"
2. "Cattle in Art"
3. "Romance in Photography"
This museum is now operating at the very limit of its physical capacity, as are too many other museums today. This fact indicates a steady, long-range program of expansion and new building.

However, many directors argue logically that the museums are being spread over too great a scope of activity. Suggestions vary all the way from simple curtailment of activities to a reversion of the museum to a library status. This extreme view is a dead issue; the museum is an active institution, and it will remain as such. The solution to this problem is to be found in specialization.

Specialization is the logical plan for a small museum with limited resources. Even the Metropolitan Museum of Art anticipates its own eventual dispersion into smaller, specialized working units. We will find this type of museum springing up all over the country where certain local conditions favor some specific activity. Isolation is no problem; it is now easier to go to a small museum than to fight traffic to visit one in a large city. Several small museums can reach a great many more people than one large museum so situated.

Among the specialized museums lacking in the United
States are the commercial and technological museums.

The outstanding, and almost the only, commercial museum in this country is that of Philadelphia, which displays raw materials from all over the world and maintains extensive library facilities for the study of worldwide commercial products, manners and customs of various peoples, and chief industries and occupations. We shall see a great increase in commercial museums, not necessarily of the scope of this very large one, but specializing in one industry or type of product and maintaining its educational facilities in that field.

Europe is rich in technological museums, but they are strangely lacking in the United States, their most fertile field for development. The Deutsche Museum of Munich has many working models of machines such as locomotives and airplane engines. The Chicago Museum of Science and Industry and the Ford Greenfield Village Museum contain similar material, as do others to a lesser extent, but the movement to create and maintain specialized museums of this type is very slow.
PART III

...THE BUILDING

Early museum layout...style and taste...The perfect building...space...flexibility...circulation...size...Exhibit areas...storage...segregated exhibits...scale...lighting...commercial influences...work and service accessibility...Educational...auditorium...laboratories...studios...controlled circulation...library...Administration...offices...lounges...storage...Service and storage...loading...packing...shop...details...Architecture...aesthetic practicality...human warmth...naturalness.......pages 41-52.
The Theodore Lyman Wright Art Hall
Beloit College
The earliest museums imposed no requirements upon their buildings, since they were just private collections left in their original locations or transplanted in bulk to some other space. The growth of more involved collections finally forced development of routing systems. The resulting room-and-hall layout is one of today's primary routing systems, and we now see the tendency toward building differentiation forced even further by variety of services as well as exhibits. We will thus consider the requirements of the building for exhibits and for the functions of the organization.

The architectural style of museum buildings has been more subject to public taste, as is exemplified by the rash of near-Renaissance palaces in the 1860's. This style was popular with the people, and its plan form fitted into the museum organization of that day.

Today we hesitate to speak of the "public taste." Modern architecture is definitely finding its way into our museums, although eclecticism still hangs on, especially in the demand for the monumental element in design.

In "The Museum in America," Laurence Vail Coleman has attempted to state the requirements for the "perfect museum." He begins by saying that the perfect building
is impossible, and he is right. Before we approach any
details, we must acknowledge the fact that what is good
today may be obsolete tomorrow, and that there are no two
museums in existence which place the same requirements
upon their buildings. This situation very effectively
precludes the formulation of specific rules. We are
forced back to four general conclusions:
1. Space for administration, education, and research
should be planned adequately.
2. Flexibility of space is necessary in planning for
constantly changing ideas.
3. Visitor traffic should be simplified.
4. There will be few new, very large museums.

We may break up the building into exhibition,
education, administration and research, and service
and storage components, giving special attention to the
problems of exhibition methods and public amenities and
their application in modern design.
The museum shows its "face" to the public primarily through the exhibit areas. In that sense, they are the vital focal point of the entire museum plan. In past times, the decor of the building could scarcely be seen behind the jumbled masses of overcrowded displays, and it was a long trip from one end of the building to the other. The classic example of this shortcoming is the museum most often held up by our statistic lovers as their ideal. The Louvre is said to house over 272,000 art objects in 150 of its 1800 rooms. This makes a slide rule average of over 1800 objects per room!

Contrast this overcrowding with one of the Rembrandt rooms in the National Gallery of Art, Washington, D.C. There are eleven paintings in the room, which measures thirty-seven feet by twenty-six feet. One of the long walls holds just three paintings. The room is simply decorated in light oak paneling with a dark floor, the sort of finish Mr. David Finley, the museum's director, believes is harmonious and subdued as desired.

If we are to limit the material shown, we will face the problem of storing much collection material or of showing it at another place. The solution to this problem lies in both alternatives. The museum should not try to show all of its material. Part will be kept in storage, and part will be housed in separate study collections, usually

(45)
a permanent installation with periodic revisions, which is placed so that the public will not be forced through it.

Circulation in the exhibit areas is very important. The areas should be planned so simply that the visitor cannot become confused about his location. Appealing vistas should open out before the visitor, yet not so far that the prospect of seeing it all becomes fatiguing. The value of a relatively small museum is obvious here.

Room scale is a very important part of the proper presentation of exhibits. Ceiling heights should be varied to create the proper atmosphere. High, imposing walls demand large scale exhibits or very careful treatment of smaller material. This point is illustrated by the problem faced by the National Gallery of Art in displaying Desiderio de Settignano's "Bust of a Little Boy." This little marble piece is only eleven inches high, and was to be placed among larger pieces in a room with a ceiling over twenty feet high. It was finally placed upon a pedestal at eye level in a niche of its own. The formula: isolate the piece and make the surrounding scale fit it.

Artificial lighting is now almost universally used in museum exhibit areas. In college and university museums, especially, many variations of skylights, high and low windows, have been tried. Skylights leave walls free, but they are hard to maintain, and dark days and night
use still make artificial lighting a necessity. Low windows create glare and use valuable wall space. High windows are the most satisfactory scheme tested. However, none of these systems of natural lighting are as uniform and dependable as artificial light. Fluorescent lighting methods can now duplicate average daylight color values. Artificial light is flexible in quantity, quality, direction, and intensity. It can be easily applied to individual problems which are a byword in exhibition work. Spotlights and floods, soft illumination and intense, dramatic shadows are all a part of the technique used in exhibition work today.

Such lighting improvements are a part of the biggest new development in museum display. Exhibit designers are borrowing methods of display, the store window and the advertising layout, from commercial art. The advertising medium must sell its wares, presenting its material in the very best light. By the same reasoning, if collection material is good, it deserves representation in the best possible manner. The day of the museum with objects placed around the walls and in glass cases in the middle of the room is over. Exhibits must be planned, often built like a movie set. Exhibit areas must be adaptable—a basic volume for flexible use—with closely adjoining work areas.
Let us summarize these points:

1. Exhibitions should never be overcrowded.
2. Decor should be harmonious with the exhibits, secondary in importance to them.
3. Circulation should be obviously simple.
4. Exhibits should never become fatiguing.
5. Exhibit areas should be differentiated:
   a. Guided and optional circulation
   b. Temporary and permanent study collections.
6. The visitor should be able to see all exhibited material in one visit. This implies limited exhibit areas.
7. Storage must be provided for some material.
8. Exhibit areas should be scaled to the general type of material displayed.
9. Artificial lighting is recommended, sometimes with high windows.
10. Exhibit areas must be accessible to shops, work, and service areas.
The educational component of the museum consists of the auditorium, classrooms, various types of laboratories, shops, and studios, and the library. Some of these areas also are included in the research function. The library, especially, falls into this category.

Auditoriums are usually not too big, seating from one hundred to four or five hundred people. They are used for class instruction, committee meetings, public lectures and music recitals, movies and lectures to museum visitors, and sometimes for dramatic productions. When this last activity is a major one, as in the Wadsworth Atheneum, there is justification for a much larger auditorium, but it is better to plan a size which will just comfortably seat most groups. A little group of people huddled together in a sea of empty seats is a dismal, discouraging sight. The auditorium should be acoustically planned and should include a standard floor incline and raised stage. Backstage facilities should be large enough for a piano and limited circulation. For productions requiring stage sets and large groups of people, ready access to hall space and studios is advantageous. Set storage backstage and adjacent dressing rooms are not necessary in the usual small museum auditorium. High windows are often pleasing in the auditorium design.
when they produce no glare.

Laboratories and studios should be individually designed for their specific uses. With every such unit there should be planned storage space and an office for the instructor or supervisor. Shops and studios tend to be overcrowded, especially when there is power machinery. Many shop standards have been formulated in public school design studies and should be consulted, but for most museum laboratory or studio requirements, individual details must be planned.

The educational section, or the museum school, should have a circulation scheme separate from that of the other sections of the building—yet accessible to them—and an entrance of its own. Controlled circulation should allow for the following possibilities:

1. Accessibility of studios and auditorium to each other and to the whole building.
2. Separate entry to these units.
3. Use of shops and studios or of the auditorium or both when other parts of the building are closed.

The library occupies a neutral position in this planning; it can often act as a buffer between the school section and the exhibit and administration areas. Museum libraries are often complete in one room, but it is advisable to have a separate office for the librarian and enough work space for purposes of normal sorting and repair work. Print and similar flat materials are often under the supervision of the librarian, and files should be included in
administration offices in the building divide into two groups. one is the co-ordinating center of the organization—the "front office"—even though in most existing buildings it is the back office, tucked away in a spare corner. here will be found the general office, staffed by the membership secretary and secretaries for the director, assistant director, curators, and the building superintendent, who will all have their own private offices. this suite of rooms also should contain a staff lounge, rest rooms, and a small kitchen if the location is adjacent to the public lounge. the kitchen is used for light refreshments at social functions and for staff purposes. a meeting room for staff meetings is desirable, and may often be combined satisfactorily with the staff lounge. storage space is usually slighted in this area, but should be provided for office supplies, literature, a mimeographing machine, and other items. reasonably direct public access to the general office and a private outside entrance to this area are recommended.

other offices, those of the educational staff and the custodian, are spread out through the building in the locations most convenient to the occupants' work. it is very strongly advised that offices be provided where
instructors can constantly oversee laboratory and shop work, especially where machines are involved.

Service and storage facilities are never seen by the public, but have a profound effect upon the museum's efficiency. There are too many museums which now have no space for handling material from a loading dock or even no real loading dock. A smooth-running service system should provide loading areas so planned that direct access for large articles to the exhibit areas and storage may be obtained. It should have a large enough receiving room to allow quick delivery and loading with space for stacking goods until they can all be properly handled. Convenient space for crating and uncrating and for crate storage is necessary. This last item is nearly always ignored, even though crates for traveling exhibits, for example, must sometimes be stored for weeks before being reused. The care taken in handling the small details such as this may well make all the difference between a good building and a next-to-worthless one.

A general shop is becoming a necessity to the modern museum for preparation of exhibits, general maintenance, and the use of the curators.

Storage areas should be accessible to this service area as well as to the exhibits. Their size and character depend upon the material they are to hold. Air conditioned
dark storage is becoming a necessity for valuable paintings and similar material which can fade and deteriorate.

One of the aspects of the building most important to the architect has not yet been mentioned. When the specific demands of the building are determined, he must integrate them into a design with some certain character. An art museum, which is a living embodiment of aesthetic taste, must not be negated by its own building. The monumental, awe-inspiring sort of museum is falling by the wayside; it does not fit in with today's personalized culture, and it is too expensive to build. At fifteen dollars per square foot, ornament and size must give way to a new design approach. Today's museums are smaller; they must entice—not impress—the public by showing a warm, gracious atmosphere. The lounges should be cozy and comfortable. There should be easy chairs always within sight of the visitor. Lower ceilings are less expensive and more informal than high ceilings. Stark functionalism is to be avoided by use of textured materials, draperies, large glass areas, and liberal doses of sunshine, green grass, trees, and foliage. The "institutional" connotation will be avoided by such a building, which is obviously meant to be frankly appealing to the personality. This accent on human warmth is pointed out
dramatically in comment on the Des Moines Art Center, which introduces the next part of this discussion.
The three buildings...Des Moines Art Center...Wright Art Hall....Fogg Art Museum...the Art Center in "Architectural Forum"....Exhibit area comparisons...Educational areas...uses...expansion...Administration and research....the floor distribution formula...Research facilities...features....the museum entity...pages 53-59.
The Des Moines Art Center
Des Moines, Iowa
The modern emphasis in museum design may be discerned by analysis of three museums now in existence, the William Hayes Fogg Art Museum, at Harvard University, the Theodore Lyman Wright Art Hall, at Beloit College, and the Des Moines Art Center, Des Moines, Iowa. The Fogg and Wright museums represent the best in museum planning of the twenties. Fogg Museum, built in 1927 at a cost of $1,230,000, is an example of the large museum building. Wright Hall, built in 1929, at a cost of $150,000, falls into the small museum category. The Des Moines Art Center was completed in 1947 at a cost of about $675,000. That price puts it at the very upper limit of the middle-sized classification, which might range in cost from $100,000 or $150,000 up past the half-million dollar mark. It is representative of the new concept of museum planning which has grown up within the last twenty years. This idea was very well expressed by the Architectural Forum magazine in an article about the Des Moines Art Center:

"Architect Saarinen has given Des Moines an art center which has fast become a source of great pride to its citizens. Located in a park near the center of the town, the new building reveals in its design and setting many changes in the concept of the community art home in this country. One of these might even be the name—the word, museum, is avoided. And this change in attitude is even more evident in the design of the building, which strives for
simplicity in background for displays and pleasantness in environment. It is a newly emphasized axiom that people will not like art if their feet hurt, or if they are made to feel like school children on a tour. If there is some place to sit, their feet may feel better, even if they don't sit down. If there are pleasant vistas to enjoy, they may well approach the objects displayed in the Center with greater friendliness.

The nature of art itself in America has changed, along with the people's attitude toward art. Intimidation was a main maker of respect for art and art houses in the near neoclassic past. Today intimidation breeds only resentment, and participation and enjoyment have replaced the old stiffness in display. A large portion of the building budget for this Art Center was put into a wing which houses an art school, intended not only for art students and professionals, but for children, housewives, and hobbyists as well. Eliel Saarinen...expresses as the aim of the art school, 'To build up an atmosphere of art creation about the whole Art Center and to create a place of interest for all the strata of the population, old and young--through the young.'

Early in its planning, there was much discussion of the basic problem: whether this center should be a monumentally formal and conspicuous structure in the urban organism or whether it should be an informal home institution for art activities, imbedded in the verdure of the park...There is nothing forceful about the horizontal lines of the long elevations and walls—which residents, now loud in praise, first objected to as being too 'like a penitentiary.' The design is as cool and placid, as dignified and pleasant as the big pool in the back court—without the sternness and pomposity which once had the American people so well bored with museums.
components by floor area, comparison of the various activities may be easily traced.

It will first be seen that the small Wright Museum has the largest exhibit area in proportion to the total space, about twenty-three percent of the total floor area. In the Art Center and Fogg Museum, the figures are, respectively, sixteen percent and sixteen and one half percent. Aside from curatorial research, the only other activities in the Wright museum are academic--lectures, classes, and library study. It is reasonable that this building should thus have a higher-than-average proportion of exhibit area. The distribution is purposely weighted in the other two museums toward more educational facilities. We may then assume fifteen to twenty-five percent of the total floor area to be a tentative estimate for design work.

The most interesting fact about the educational facilities of these museums is that in every case they are more extensive than the exhibit areas. The Des Moines Art Center has slightly over twenty-seven percent of its area in studios, workrooms, shops, and an auditorium. Wright Hall has very slightly less than twenty-seven percent, which includes class and lecture rooms, and one studio. The Fogg Museum puts twenty-four percent of its gross area into class, lecture, studio, and study space
and a rather large auditorium. With the increasing importance of educational work, the space allotted to this function is steadily increasing in all types of museums. Over one fourth of the total gross area is already an average figure, and the proportion will increase to thirty percent or more. Care must be taken that educational expansion does not get out of hand. If this were to happen, the art museum would degenerate into an art school. However, deduction of either the auditorium or the library, in the museums presented here, would bring the area back to equality with the exhibit area and no more.

Administration and research areas may vary widely from museum to museum. They never take up a great amount of space, but it is very important that what is provided be well planned. Our examples vary from three percent of the gross area in the Fogg Museum and the Des Moines Art Center to seven percent at Wright Hall. These figures probably are not accurate, since much of the educational effort in a college or university museum is connected with research. There is no space actually allotted at Des Moines for research work. This is a sensible idea; there is no point in doing active research in every museum. Research is, of course, a by-product of most museum work, but the place for its organized
strength is in the colleges and universities. In all three museums analyzed here, the offices are placed near the areas in which their occupants work. This is especially notable in the Fogg Museum, which also has administrative offices grouped on the second floor.

The Fogg Museum illustrates the form which has been tried as a formula for art museums:

- **Ground floor:** Educational space, auditorium, shops, work rooms, and offices.
- **Main floor:** Exhibits.
- **Second floor:** Exhibits. The library may be here or on the main floor.
- **Top floor:** Curatorial offices and work rooms.

The tendency to spread the building over large areas on one or two floors is rather discouraging for the "formula," along with the fact that horizontal circulation is easier to plan and more efficient than vertical movement.

The Des Moines Art Center has very little provision made for service. There is a grade entrance and elevator accessible to the exhibit and storage areas, but no space for packing, crate storage, and general work space. The museum does have a very good shop and beautiful dark storage areas, one of which may take the place of assigned service area storage. Dark storage takes up well over half as much floor area as is used.
for exhibition purposes. In the Fogg Museum, the exhibit-storage ratio is also less than two to one. There is relatively little storage space in Wright Hall; the ratio there is about five to one.

One of the good features of the Fogg Museum is the specific planning for modeling, photography, and other studio work. The basement service area has the difficulties of limited access from outside and long supply routes to the rest of the building. Fogg Museum also shows many odd corners and useless spaces which result from the desire to create a symmetrical balance in the plan.

The Des Moines Art Center, in its building form, shows the new thinking more clearly than the others, but in all three buildings may be found the essence of planning a museum for its functions. We see the idea of designing a museum to be just that, not a miniature Roman bath or Renaissance palace, taking root and coming to fruition. The features of these buildings should not be transplanted bodily from one museum to another; every museum is an entity in itself. We will not deny nor disparage the borrowing of ideas; learning must be diffused in such manner. What we want to avoid is any semblance of "fixture standardization."

In the investigation of these museums, we have limited the study to the art museum. We have done this
because the art museums present more varied activities with more public participation than any other type of museum. We want to show that the future of the art museum lies in its value in educating the people to the closer harmony of the arts and industry, with its technological progress. The art, technological, and industrial museums seem to be destined for the greatest near-future expansion.
A Museum of Industrial Art and Design...a specialized museum...its value and methods...The exhibit areas...orientation...exhibits...expansion...walls of glass...eye ease...light...atmosphere...Education...the auditorium...shop, studio, and design...the school's work....Service facilities, mechanical equipment........pages 60-65.

Conclusion: Tomorrow's museum in a changing world...a source of enlightenment...pages 66, 67.
Entrance detail--Museum of Industrial Art and Design
The museum presented here is a museum of industrial art and design. It is designed for a medium-sized city like Seattle, Sioux City, Memphis, South Bend, or Houston. It could be built and maintained easily by any city of 100,000 people or more.

The museum is a specialized unit. It presents the best in its one field of activity. It will show advertising art, factory design, T.V.A. architecture, art in paper carton design, automobile shows—the list may be extended as far as the imagination can go. It can open the public mind to new thinking. What is streamlining? How and why is a camera lens, a steam turbine, or a common brass wood screw a thing of beauty? The appreciation of beauty all around us is one of the fundamental values in a full, productive life. It has other more practical aspects. It leads to alertness and understanding of what we buy and a resultant improvement of quality and beauty in manufactured articles. It creates new products and demands. It discovers interests and aptitudes in art, design, production engineering, or toolmaking, for example, putting people in fields of work where they really belong. This is the field of the specialized museum, concentrating effort in one aspect of culture, producing knowledge which spreads
through other fields of learning like oil spreading on water.

The exhibit area is within reason in size. About half of it is planned for temporary and traveling exhibits. It can be adapted to local needs as they arise. Area I is fitted for small and medium-sized material. Area II has a higher ceiling, and will thus accommodate large objects. These two exhibit areas, clustered around the lounge, are set back so that the visitor can enter the building and make a leisurely, comfortable circle through them. They are away from traffic paths, yet near enough that they can easily be seen. The lounge is always within sight, even from the farthest permanent exhibit. The visitor may bypass or visit the permanent study collections in Area III at his option. These exhibits are built individually as the need for them arises. They may be changed or replaced as desired to formulate a well-rounded view of industrial art.

There can be exhibits classified by material, by function, by area of manufacture, or by combinations of classifications. The method of display is suggested by the plan indication in the upper left part of Area III.

Area III and the dark storage area are such that one can borrow from the other for extra exhibit or storage space and a proper balance between exhibit and
storage requirements. The storage area has been designed somewhat larger than the expected requirements. It has about one half the total exhibit floor area, almost as much as Area III alone. Any expansion of the museum's exhibit area is expected to be limited to the adjustable space thus provided. Exhibit area amounts to about 7,150 square feet, or about twenty-one percent of the gross area.

This museum has one entire side of the permanent exhibit area opened up in solid glass, which faces the inside court. This glass wall may be criticized because of the loss of the wall for hanging space or because of earlier statements about windows for lighting. However, its value lies in several features. One is that the material shown in the museum is mostly objects which are not hung, but are situated in built-up settings. The passage and alcove system of display represented here is ideal for such displays, since it allows eddies in the traffic pattern where the visitor may linger to study a group without disturbing others.

The lighting effect of an entire wall of glass is different from any window system, since windows in a relatively dark wall create glare and consequent eye-strain; the iris must alternately adjust to light and dark areas. The glass wall has no dark areas, and creates no shadows in the room; instead, the entire volume is flooded with light. The public has seen this
effect for years in store display windows, but only re-
cently has it been used to advantage in other places.

A third effect of the glass walls is to unmistakably
express the feeling of the building in the exhibit atmos-
phere. This is not the contrasting element one might
expect; actually it maintains the warm, comfortable feel-
ing that entices the visitor into the building. The
feeling of awe is replaced by more enjoyment of the
exhibit without self-consciousness. At night, the visitor
has before him when he enters the building a sweeping
vista of inviting displays, easily seen and oriented.

The educational elements of the building are the
auditorium, the library, and three workrooms with
accompanying offices. The auditorium is planned pri-
marily for movies, lectures, and recitals. Its use for
dramatic productions would be very limited. It would be
used by civic groups for evening functions. It is
accessible from all parts of the building, especially
from the school wing, the study collections, and the lobby.

The shop and studio have been designed as long,
narrow rooms for versatility of use. Several different
groups can work in each room without undue commotion. For
example, there may be a painting class, a clay modeling
group, and a photography crew working in different parts
of the room. Yet the identity of the space is maintained
for its use by large single groups.

The design room would be equipped with desks and study tables. It would have three uses—small, informal class lectures, classes in design, and informal design work preliminary to going into the other rooms for its execution.

Rest rooms in this section are a necessity. The dirty nature of much art work makes the large wash-fountain alcove near the entrance a very desirable feature, since it would keep the clean-up work out of the rest rooms.

The educational facilities can easily be expanded to a second floor with the same general plan around the auditorium.

The work carried on in the school should reflect the character of the museum. Handicrafts, metal work, furniture, photography, air brush, and mechanical drawing are samples of the wide variety of interests which is possible. The museum should attempt to include professional and trade groups in its school activities. There is a big, relatively untouched group in manufacturers, skilled tradesmen, and other people like professional designers who have no opportunities to express their ideas in solid materials.

The plan of the museum groups the receiving room,
packing room, general shop, storage and exhibit areas, and administration office access as closely as possible. Exhibit material has only a few feet to travel from the truck to the exhibit areas. An automobile can be driven in without any turning. The curators' work rooms should be accessible to the receiving room and the general shop. The director, who is responsible for everything in the museum, should be able to oversee activities here without crossing the entire building.

Heating and air conditioning are located below Exhibit Area I. Air conditioning is not just an expensive luxury, but is a control in preserving material subject to deterioration from temperature and humidity variations.

The best way to finally evaluate a plan is to "live" in it, to put one's self in the position of the staff and visitors and circulate through the building. It is then that the practicality and atmosphere—the feeling of the building—will best show up.
There are two methods of approaching any problem—to analyze specific difficulties and devise individual solutions, later integrating the whole, or to consider generalities first, and try to evolve ways of thinking which will be adaptable to special conditions. The first method is one of expediency; the second is more useful in long-range planning.

Civilization has seen more change in the last 150 years than in all recorded history before that. We are now in a state of flux which will go on for a long, long time. Long range thinking, adaptable to constant change, is in order.

In this picture, our museums act in two paradoxical ways. They are a source of orderly continuity between eras, and at the same time, they must present the new ideas to the people. A certain number of people can accept new ideas by theoretical reasoning, but the great majority must be prodded into thinking by sensory stimuli; they progress from things to ideas.

The museums are, therefore, in an envious position. Through the exhibit medium, objects—things—can be interpreted to the people with unprecedented effectiveness. The scope of this idea is enough to insure the museum an expanding importance in culture for many generations to
come, as far as we can actively predict. Through no other medium can the contributions of the arts, architecture, science, and the humanities be so well integrated into everyday, commonplace terms.

The Mundaneum was conceived upon one big fallacy. Our civilization is not a stepped pyramid with our culture at its tiny peak. Our civilization is many inverted pyramids which stem from little pinpoint bases of enlightenment and grow together at the top into a great, complex plane of culture. The buildings we see scattered around the country, with their Gothic galleries, Richardsonian arches, triangular steel frames, or glass enclosed courts--our museums--are a vital link in that plane of culture. Churches, schools, colleges, universities, the press, and museums--all are synonymous with enlightenment. And enlightenment is our hope for the future.
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