ORNAMENT IN RELATION TO MODERN ARCHITECTURE

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ORNAMENT IN HISTORIC STYLES.
Never has man been satisfied to continue on the same level of ability; never has he chosen to look long at the same objects without a desire to modify them. Early civilizations disclose a constant dissatisfaction with design motifs, and a continual adjustment to the conditions brought about by the development of mediums capable of artistic expression. When new mediums were discovered new structural conditions were present, a new manner of ornament had to be developed. Slowly material was conquered by the ingenuity of men. When the material was conquered so completely that it lost in part its structural character; then an era had been completed. A new style then developed to clarify the excess of the old one and to carry on the advancement of knowledge and science. Thus the different periods of architecture show both continuity and individual significance, each period involving new engineering, economic, social, or spiritual problems.

The history of architecture and ornament is recorded through four historic epochs; excluding those of the Chinese, Indian, and Mayan civilizations which I feel have little or no influence upon, or characteristics in, contemporary architecture. These epochs are the Pre-Classic which includes the monuments of ancient Egypt and the Mesopotamian Valley; the Classic, comprising the architecture of Greece and Rome; the Medieval, embracing the Early Christian and the Byzantine, as well as the periods when human existence was based upon faith and life in the world to come, the Romanesque and the Gothic; and then the Modern, consisting of
that age of science which had its birth during the later portion of the fourteenth century in the cities of Italy, and is known universally as the Renaissance. That concludes history. Our present age of science and machinery which begins moving so swiftly forward near the close of the nineteenth century can not be considered as history. Our age is of the present, in the act of development, of our own day, and must be reviewed for its worthwhile or valueless qualities. Whether this age, to which the future will give a fitting title, but which we take the liberty of designating merely as modern, deserves recognition as a style, or is only a passing fad created by architects who wish to be different, remains for another portion of this thesis to discuss. Just now let us examine the recognized historic styles both for their pleasing as well as their annoying, or truthful as well as untruthful characteristics of ornamentation.

Primitive Styles.

The account of the earliest form of ornamentation is very vague and unsubstantial. It is unimportant except that it gives us a starting point from which to trace the development of ornament. It is certain that the earliest known historic ornament belongs to a civilization already well advanced, as the oldest existent specimens of ornamental art, dating back to the palaeolithic age portray a skill which is well advanced and point to a beginning in a still more remote past.
There has been found in the caves of the paleolithic period in France, Spain, and Germany, ornament of good quality. The men of this time knew and understood animals, the subjects of the major portion of their ornament. They appreciated the beauty of form and line and were skilled in the ability to select the essential characteristics and express them in a few significant lines. These men also disclosed a knowledge of composition in the engravings on the walls of their caves, and upon their weapons and utensils. Such an engraving as the Procession of Mammoths and other Animals in the cave of Font-de-Gaume, France, and the Bison painted on the ceiling of the cave of Altamira, Spain, show a relatively well composed arrangement accomplished by the use of few simple, direct, well chosen lines.

There is only a very vague, fragmentary account of this early age of ornament but from the comparatively few available examples it can be seen that men even before this time were certainly interested in decorating their surroundings and utensils of life because the composition of this period is rather well advanced, and composition is not likely to be achieved instantaneously.

These men were working in the mediums at their disposal, chiefly bone and stone, working out their designs to fit these materials. Their ornament was designed to decorate the interior wall surface where a cave was hollowed out of stone, or to fit the surface of their tools and utensils. Here ornament was used to decorate
a functional necessity so as to satisfy the aesthetic emotions of men. Already are seen, at this early date, men striving toward a truthful ornament; a balancing of the embodying medium and the spiritual content. This same characteristic is evident at the height of all ages of ornament; truth, fitness, proportion, composition, and directness.

Egypt.

It is in Egypt that the first examples of exterior ornament are found, as the ornament of the Palaeolithic age is that of the interiors of the caves. In Egypt is found a heavy bold type of architecture and consequently a bold ornament. Stone was the major building material of this country, bringing about the necessity of massive walls and many supports. To break the monotony and to give these walls and supports interest, the Egyptian designers created ornament that was brilliant in color, and depended greatly upon shadows and the play of light for its effects. This was in keeping with the climatic conditions of the country, which provide constant bright and clear light.

The most widely known remains of Egyptian architecture, the Great Pyramids at Gisih, show no ornament, but it must be remembered that they are only the remains of a once great monumental scheme of a temple and an avenue which led from the banks of the Nile to these massive, simple tombs of the Pharaohs. It was upon these temples of the valleys and upon the tombs cut in
the cliffs that the Egyptians displayed their efforts at ornamentation. We can picture these gorgeous approaches, rich in color, the temples practically covered with simple flat carving; the avenues lined with carved figures; but we must turn to more concrete examples than our imagination for an examination of Egyptian ornament. The examples to which we must turn are the remains of temples along the banks of the Nile, and the rock cut tombs in the vicinity of Beni-Hasan and Abu-Simbel, hewn in the rock cliffs which rise high on each side of the narrow Nile valley. From these actual remains Egyptian ornament should be considered.

Egyptian ornament was simply carved and extremely conventional. During the Empire and Saite periods it was extremely sophisticated in character, except in a case where the head of a certain person might be used and here the carving of the head portrayed the accuracy of portraiture. There seems to be no attempt to particularly emphasize any certain portion of the structures, rather the direction seemed to be toward having the entire facade appear as one unit with the entrance or other portion incidental in themselves but instrumental in the resultant unit. This aspect is seen in the case of the rock cut tombs near Beni-Hasan, where a portico is formed by the process of carving out of the rock cliffs three bays, formed between pilasters at each end and two sixteen sided columns supporting a heavy beam like cornice. In this example is seen the simplest form of decoration that of giving
interest to a support by giving it a number of planes; yet this portico is designed as a single unit; an attempt is made to add interest to a whole design by putting interest into what might have been cold, uninteresting posts. Designs in which the aim is to have a delightful unified composition as a whole might again be seen in the Temple of Hathor at Dendora and the Hermili Temple on the Island of Elephantine, more advanced designs, where a series of columns of the lotus plant origin supporting a simple cornice forms a portico. In the case of these are seen colonnades, brilliant under the bright sun of Egypt with a shaded portico in the background; a pleasing shadow between the sunny, bright columns. In this shadow is placed the simple doorway; the designer has taken advantage of the light and resultant shadow of the country in a most pleasing and interesting solution of his problem.

The huge pylons of such monuments as the Temple of Khons and the Temple at Edfu are covered with incised carving or low relief. The pylons are massive. This treatment, through the play of light on the indentations, tends to soften and give texture to the surface as well as to greatly increase the interest of the whole design. The sculpture is composed in horizontal bands which do not weaken the solid appearance of the structure. A simple cornice gives to the edifice a definite finish and a powerful silhouette. In these buildings the entrance is slightly emphasized; it being an opening between two huge pylons, either set back slightly or brought for-
ward. Can it not be assumed that the Egyptian designers intended to purposely receive this shadow in either case as a relief? It is not likely that the pleasing play of light and shade in all Egyptian architectural accomplishments was purely accidental.

Some of the mastaba tombs in the vicinity of the pyramids, though very simple, have an interesting decorative band across the top and around the doorway; or a simple column of pilaster treatment about the doorway, forming a small portico and again taking advantage of the shadow.

Another type of structure is found at Abu-Simbel. These are temples where colossal figures are hewn from the rock cliffs and flank the entrance. The huge figures greatly diminish the scale of the entrance and make its position incidental. Here it seems to me is a step away from unity, as the attention of the observer is drawn to the individual figures separately and the tomb appears unimportant as a unit.

The ornament of Egypt was created to relieve the heaviness and dullness of the great amount of blank wall surface. The walls were massive because of structural requirements and left without openings because of climatic and religious conditions. These walls had to be relieved of their plainness. The religious beliefs of the Egyptians presented the idea of leaving the story of a person's activities. So where could there be a better location for this narrative than the great walls and pylons of their temples? This story was carried out in a manner of design that
softened, yet held together, so it seemed, these great stone structures into one complete, unified, attractive project. The columns and cornices illustrate the ability to create decorative forms from their beloved papyrus, lotus, and palm plants.

Like the climatic conditions of Egypt, the ornament and its use show a sameness in character and technique which, though interesting, would become extremely tiring to any other people. The approach of the Egyptians to the decorative problem seems to be the continual use of a few set methods, but there is an extraordinary variety of detail in the treatment of this somewhat limited stock of fundamental motives. It is predominantly an art of surface-decoration by color and light and shade the range of structural and architectural forms being very narrow. But Egypt is a country where each day has the same bright, hot sun; each night is clear; each spring the Nile rises out of its banks and then again re-sumes its peaceful nature for another year; a country in which there is little change. Egyptians lived day after day under the same conditions. Cannot their architecture and ornament be expected to show this influence of sameness?

Mesopotamia.

In the Mesopotamian valley there was developed a civilization contemporary with that of Egypt, but a civilization of which are left scant remains of its architectural accomplishments. This civilization was built up by the Babylonians to the south and the Assyrians to the north in the
fertile area between the Tigris and Euphrates rivers, and by the Persians farther to the east. This was a section in which little or no stone was to be found, and that which was imported had to be brought through very arid sections of Asia Minor; obviously stone was a very precious building material and little building was done in this medium. The chief medium of this section was brick. The use of brick as a building material is the cause of our lack of positive evidence, for the brick has crumbled and disintegrated to such an extent that much of the study of this period must be made from only the lowest portions of a structure. This handicaps us in arriving at a positive valuation of the decoration.

The decoration was done both in brick and in stone. Where decoration carved from stone was used it was set into a brick wall surface. The majority of the stone decoration was used on the interiors, but that which is seen on the exteriors is well designed, well carved, and well placed. Much of the brick decoration has been lost, and it is from a very few remains that an observation of the character of this work may be made.

The chief mode of decoration was the use of moulded bricks designed to form a running frieze on the surface of the walls. These friezes were a part of the wall and not an added amount of brick. This use of ornamental brick as a part of the wall may be illustrated by the Frieze of the Archers from the Palace of Darius at Susa, or at Babylon on the Ishtar Gate where, after being led up a great avenue decorated on
each side by a frieze of lions, bands of beasts are arranged one over the other to give relief to the massiveness of the great gate. These friezes are of glazed, colored brick, which give a brilliant, interesting addition of color to a structure created with a material that has naturally of a rich, colorful, soft quality. These friezes were usually limited to the lower portion of the buildings and acted as a base upon which the high brick walls rested.

Further north at Khorsabad there is an interesting treatment of the gateway of the Palace of Sargon, a combination of brick and stone. The Assyrians understood and used the arch. The arch is supported on each side by a beast with a bull's body, a man's head, and bird's wing. The arch rests upon the head, and the load appears to be carried to the ground through the head, neck, and fore legs. Along the base of the pylons these curious beasts are repeated and form a strong base frieze upon which rests the brick work of the pylons. Around the arch is a band of a glazed tile design alternating a rosette with a winged human, while along the top is found a battlement similar to that of the fortresses of the medieval period. This battlement form is decorated with brilliantly colored tile. The lower and upper portions of the structure received the greater amount of decoration, the portion is between simply having a vertical treatment of brick to connect the upper and lower portions and pull the structure into a single unit.

Persia.

In Persia, in addition to the glazed brick
designs as at Susa, which it was the Persian's glory to have brought to perfection, occurs a wider use of stone. At Persepolis is seen the use of the columns supporting a simple cornice. The use of the columns gives the buildings a lighter, more open appearance than has been seen before in Egypt or in the Mesopotamian valley. These columns are more slender and more graceful than those that are seen in Egypt (these columns support wooden beams and silken roofs). The fluting of these columns, the lighter cap, and the decorated base aid in accomplishing a slender effect in comparison with the bell-like Egyptian caps and round shafts covered with horizontal bands of relief, which naturally give to them a more squat, massive appearance. The double bull or double unicorn style of cap upon which the wooden ceiling beam rests in a saddle between the heads, sometimes with a decorative sub-cap derived from a floral design and scroll, was the prevailing type of cap during this period.

These people of the Mesopotamian Valley centralized their ornament usually about the entrances. The columns of Persepolis gave an all-over decorative effect, but if these monuments are observed closely it will be seen that even here the ornament is concentrated in the bases, caps, and cornice with the flutes of the columns holding the composition together. The Mesopotamians used their ornament to emphasize the portions of their structures which they considered most important, that is the base for solidness, the top for silhouette, and the entrance feature because of its importance as the source of access of the structure.
Before entering a discussion of Greek ornament several fragmentary examples of the Minoan period should be examined. It was in the art of the Minoan civilization that many of the forms later developed and expanded by the Greeks had their birth.

The entrance of the Treasury of Atreus at Mycenae had on each side a half column with a richly decorated shaft, tapering toward the bottom, a simple base and cap, supporting a carved entablature. The decoration is limited to this portion of the building and though it is simply applied ornament having no structural value still it does create an interesting entrance feature.

In the void above the opening of the Gate of the Lions at Mycenae caused by the system of transferring the load above to the side walls by corbeled stone courses is found a delightfully carved bit of ornament. A pair of lions facing each other with their forelegs raised upon an altar and a simple column between them forms the composition.

In both these examples the simplicity of Minoan ornamentation is evident. Though richly carved, the entrance to the Treasury is composed of a few simple forms upon which a great amount of flat decoration is used to emphasize these forms. Here again is evident a design similar to the pair of lions in the triangular void above the entrance of the Gate of the Lions. This use of the lions is an interesting and well executed solution to the problem of filling

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the awkward void brought about by the Minoan's lack of understanding of the arch.

From the few remains it can be seen that the ornament of this period was created to decorate simple structural forms. The ornament seemed appropriate and necessary.

The civilization, culture, and power of Crete grew rapidly during the seventh and sixth centuries before the birth of Christ. Formed of a group of jealous city states submitting to the will of the mightiest, Crete developed into an extraordinary power sweeping into Asia-Minor, Italy, and Egypt and conquering all in her path till her government and culture was the influencing power of the then known universe. Quite naturally the results of their artistic endeavors is seen not only in Helles but all along the Anatolian coast, the islands of the Aegean, and Magna Graecia.

Remains of Greek architecture are limited to temples, monuments, and a few public buildings. From these a conclusion is reached that Greek architecture depended largely upon mass and proportion for its aesthetic qualities, with ornament being used to emphasize well studied proportions. Greek design was simple. They used the post and lintel type entirely. Their spans were set by the strength of their materials, stone and wood; it was the task of their architects to create fitting, pleasing proportions and to ornament their resultant forms with decoration that would aid in the task of expressing with clarity these proportions. These people did just this and with a quality and simplicity of design and craftsmanship that has never been excelled by any age. I can not agree with some critics that Greek design has never been equaled.
How can any one say that the impressive, spirit moving, slender vault construction of the twelfth and thirteenth centuries does not equal the design of Greece? The medieval monuments were created under entirely different circumstances and must be thought of and studied as such.

The Greeks cared little for a mere pattern type of ornamentation. In all Greek ornament the structural principle is evident: an organic and logical relation between the object and its decoration.

Nothing that did not lead to the expression of the project was allowed in the design of the Greek masterpieces. Simplicity and truthfulness was the aim of these people. Their government, their social life, their continual seeking for knowledge show their love and desire for truth and simplicity. Their scholars worked to explain all phenomena, matter, law, life and religion in simple truthful manner. The Greeks were idealists to the highest degree and truth and simplicity are the essence of idealism. What other possible direction could one expect the architecture and ornament of such a people to pursue but one of simplicity, directness, and truthfulness.

Another outstanding quality of Greek ornament is its serenity and restraint, the artist’s ability to leave a plain surface where desired, and not to elaborate a motive or pattern.

The architecture of the later Greeks, that of the third and second centuries before the birth of Christ, tends toward a style in which the craftsmanship of the sculptor rules over simplicity of design, but this is not
typical and appears only at the close of the period, really a decline. Just as the power and culture of Greece were declining in favor of Rome so too was the architecture giving way to that of Rome.

Greek temple forms remained essentially the same throughout the period. The peristyle was a colonnade running completely around the cela supporting the entablature, and with pediments on the east and west ends. Their problem in ornament was to decorate the entablature, pediments, and columns.

Perhaps the finest and truest Greek work was done in the Doric order, brought to its height with the creation of the Parthenon during the age of Pericles, when Athens was the leader of the Greek Confederacy both politically and culturally.

The delightfully proportioned colonnade of eight columns across the east and west facades and seventeen on the north and south supporting their entablature and pediment certainly must have been a most impressive monument for even in its present state it gives evidence of its once stately, serene, dignified position on the Acropolis. These Doric columns are fluted to lighten their appearance and to carry the interest to the entablature. The architrave is decorated merely with bronze shields thus leaving a solid appearing surface spanning the space between the columns. In the frieze is seen the alternate use of the triglyphs and metopes forming a rich decorative band that retains its strength. The sculptures of the metopes tell some pagan myth. The cornice is made up of several simple horizontal mouldings, under which is an inclination.
approximating the slope of the roof. This inclined plane has flat mutules that suggest the ends of sloping rafters appearing over each triglyph and metope. The mouldings of the cornice are carried along the rakes of the roof, on the west and east facades, forming the pediment, and it is in this triangular space between the mouldings following the roof and the horizontal of the lintel over the columns that the Greeks accomplished some of their finest sculptural decoration. This space was ornamented by free standing figures designed as a group to obtain a decorative result, having a central motif at the apex of the pediment and those on each side arranged in sitting or lying positions to fill the space and to lead the eye to the center.

Such a simple direct method of ornamentation was followed in all the Doric temples both in Athens and in the Provinces. As might be expected the sculpture of the Metopes of the early temples was not as well designed and did not fill the square space as compactly as those of the Parthenon. Likewise the designs of the pediment of these early temples were crude; the triangular space was an awkward one to handle and in the early periods the figures were diminished in scale according to their importance, which consequently created a confused sense of scale as well as leaving a very awkward space at the lower extremities of the triangle, usually filled with a horse's head or the like. This gradually was corrected and the pediments of the later temples are well filled, one figure blending into the next nicely, and the whole in good scale. The mouldings of the cornice might or might not be decorated but when they were
as in the case of the Parthenon, the or-

ornament was derived from nature.

The principle of the Ionic temple re-
mained the same as the Doric. It was
divided into three major parts, the column,
the entablature, the pediment. Here the
columns become more slender with a graceful
base, the flutes of the shaft deeper and
slightly separated, and a volute cap re-
placing the echinus and block cap of the
Doric, the whole being more decorative and
graceful. The proportion of the colonnade
remains the important feature. The frieze
becomes a continuous band of medium relief
sculpture, the design being continuous,
giving a rhythmic solid line upon which to
receive a play of light and add interest
to the facade. The mouldings become a
little more richly carved but the use of
ornament derived from nature remains typical.
The pediment form remains but was often left
plain. Simplicity, serenity, dignity, and
truthfulness are still the feature of the
creations of these people, as is seen in
the north and east porches of the Erectheion
on the Acropolis, the Temple of Athena Polies
at Priene, and the Temple of Athena Apteros
on the Acropolis in Athens.

The Greeks seldom used the Corinthian
order. When they did use it the same extent
of simplicity was followed as in the Doric
and Ionic orders. Examples of the use of
this order are the Olympieion and the Choragic
Monument of Lysicrates in Athens. These
monuments again show that common form of the
Greeks, that of strong exquisitely proportioned
verticals supporting a equally well proportioned
horizontal, with decoration used to clearify and
emphasize these forms.
It must be remembered that all of this sculptural decoration was colored, giving a bright, interesting surface to the building. This color was applied in flat tones, the shade being given by the folds of the robes and the high and low portions of the design. This use of color gave life and texture to the structure and did not detract from the clarity, serenity, and dignity of the architecture, but may have added to its simplicity in distinguishing different planes, particularly in the case of relief sculpture.

With the new artistic forces that began to impress themselves on the Greek world and their increasing demand for recognition during the course of the fifth century, a turn toward the use of surplus ornament is seen in Greek architecture. This movement can be followed from the later Temple of Artemis at Ephesus to the great Altar of Zeus at Pergamon with its elaborate gigantomachy.

At Ephesus the mouldings appear heavy, poorly proportioned; the sculpture on the lower portion of the columns divides interest; and the sculpture of the pediment is heavy and complex. Simplicity and directness is giving way to craftsmanship; that true unified composition of the fifth century is being broken; detail is now designed not to explain composition, proportion, and structure, but to show the skill with which a master sculptor is able to model stone, the material that once was so hard to fashion into the desired form. The serenity which was so delightful and apparent in the masterpieces of the age of Pericles and immediately thereafter is being overcome by unrest; complexity is replacing simplicity. The movement of unrest and
surplus ornament results at Pergamon in extreme complexity and restlessness of composition. A great age of architecture is at an end.

The architecture of Rome is to become the dominant style of the new age just as Rome is to replace the swiftly decaying political power of the Greeks.

Rome.

Before beginning an examination of Roman architectural ornament mention must be made of the Etruscans who were the early settlers of Central Italy. It was not their ornament that so greatly influenced Rome but their structural knowledge, their understanding of the true arch which was developed by the Romans into a great system of concrete construction, the vault and arch principle. The use of this system was the major principle of Roman construction and it was upon these forms that their decoration had to be created.

When one observes Roman architecture an entirely new decorative problem is comprehended. While the Greeks built their structures of the material of which the decoration was created, the structural system of the Romans was that of concrete, a rough form which was most unpleasing. This system had to be ornamented by a finer material and the use of marble veneering became obvious. Where the ornament of the Greeks had been created as a part of the structural system, the Roman ornament was merely a pleasing clothing applied to a rough structure.
The ornamental qualities of the Romans showed greatly the influence of their extreme love of splendor and luxury. In contrast to the simplicity and serenity of the Greeks, the Romans lacked refinement and restraint. They lacked a sensitive ability to leave a structure plain at certain points and to emphasize others. Their goal was to achieve an effect by lavishness and splendor; to produce a strikingly elaborate facade that would tell of the wealth and glory of Rome.

This aspect can be illustrated by observing either the Baths of Caracalla, the Colosseum, or the structures in the Imperial Forum. Here are seen examples of the major types of Roman structure all lavishly decorated rich entablatures; column bases, shafts, and caps; columns and pilasters used merely decoratively; a structure of rough concrete with richly carved, veneered marble for a decorative result. Some of the temples in the Forum have porticos of which the columns are structural but the decoration of the Basilica of Constantine, Basilica Julia, and the Arch of Septimius Severus show structures upon which the decoration is of richly carved, false panels, columns, and cornices. Even in the case of columns and cornices which are structural the extreme desire for rich, elaborate carving is the feature rather than solid simple supports such as is evident in Greek porticos.

Owen Jones tells us: "The real greatness of the Romans is rather to be seen in their palaces, baths, theatres, aqueducts, and other works of public utility, than in their temple architecture, which being the expression of a religion borrowed from the Greeks, and in which probably they had little faith, exhibits a
corresponding want of earnestness and art-worship. This passage clearly tells the story of Roman architecture, the architecture of a commercial, judicial nature. Their temples appear to lack religious inspiration; they seem to be interested in the glorification of Rome. The Greeks always were interested in creating a structure having the perfection worthy of the gods. The Romans were interested in self glorification. This presents an interesting explanation regarding the difference of the styles of the two periods; the inspiration of the Greeks was in their temples, quiet, refined, and serene; the glory and power of the Romans was reflected in their judicial and commercial structures, luxurious, lavish, and splendid.

One of the most typical decorative schemes of the Romans was to the use of forms, structural in character, as ornamental veneer for the real structural form. Continually they would use veneered columns, half-columns, entablatures, friezes, and pilasters to obtain a decorative result. Veneered columns or pilasters would be used to cover the rough arched structural forms. This would set the arch in shadow, give the wall relief, and emphasize the vertical or horizontal members of the structure, but any of them might be taken away without in the least weakening the structure. This is, I believe, a justifiable use of structural forms for purely decorative ornament.

An example of this type of ornamentation is seen in the case of the Colosseum, where superimposed orders relieve somewhat, the

1. Owen Jones - Grammar of Ornament Page 44.
dullness of the rough concrete structure. I say, somewhat, because this repetition of arches flanked by columns itself becomes dull. It is the added splendor of the finish of the veneer and the shadow cast by the columns and arches which really give the interest. This example gives a good impression of the luxury, splendor, and self-gloration evident in all Roman ornament. Let one examine the arch of Titus or arch of Septimius Severus and see how veneered columns and richly carved panels give splendor and interest to what if left un-veneered would be dull and most unpleasant.

Again observe restorations of the Baths of Caracalla, where, in the tapiderion, massive columns appear to carry the load of the vaults, but these columns could be taken away with no structural weakness resulting. A like effect is seen in the Basilica of Constantine.

The Romans commonly used carved conventional ornament in place of the figure sculpture of the Greeks. The friezes of the Roman entablatures contained conventionalized floral designs. This gave an appearance of splendor and fine craftsmanship. Also panels and mouldings were richly carved. The simplified acanthus forms of the Greeks were replaced by the more complex application of acanthus leaves to any form and in any direction; they took the beautifully conventionalized Greek form and went nearer to the general outline, but exaggerated the surface undulations. This use of rich foliage carving presented a feeling of luxury and glory in contrast to the refined, restrained, simple friezes of the Greek Temples.
As an example one might view the Maison Carrée at Nîmes, or the arch of the Goldsmiths in Rome. In each case the mouldings and friezes are richly carved with conventionalized foliage forms.

The Romans seem to lose interest in the profile and contour of their mouldings and the value of general proportions of a structure. These were destroyed by the elaborate surface modeling of the ornaments carved on them. Moreover the ornament does not grow naturally from the surface but is applied to it. Though the result most often in that of dignity and splendor, the ornament does not have a definite adhesion to the frame. It exhibits its applied nature.

This striving for splendor sometimes led to offenses against good taste, and the execution is occasionally coarse, but such offenses are not general, and the result of beauty, refinement, delicacy, and charm more frequently characterize even the most grandiose works.

The most used Roman orders, the Corinthian and Ionic, are more decorative and elaborate than the generally used Greek orders. Even the Greek Corinthian is much more simple and restrained than the Roman order. The Roman orders are more slender and give a feeling that they are not so structurally necessary as was the case of the Greek columns. The bases and caps of the columns of Rome are much more delicate, more richly carved, and more elaborate than those of the Greeks. The shafts are more delicately fluted, the whole has a more decorative rather than structural feeling.
The Romans seemed never to be satisfied till they had incorporated in their monumental buildings every possible ornamental form. Material here was a distinct influence for concrete demanded a disguise so the Romans completed the magnificence of their monuments by a wealth of decoration.

The characteristic of Roman ornament lies in its forcerfulness. The Romans ruled the world and Roman architecture was the outward expression of the national love of power. The power and lavishness of the ornament was influenced materially by this Roman feeling of self-glorification.

Byzantine and Early Christian.

With the decline of the Roman Empire and rise of Christianity there arises a new period of architecture; the medieval, that period in which man lived a life of reverie, dreaming of a future life that would bring eternal happiness after a life of suppression and strife in this world.

There developed a new architecture, an architecture which concentrated its effect on emotion, an architecture that shut off its worshipers from the outside world. Thus there evolves an architecture with ornament and charm concentrated upon the interior.

For about four hundred years there develops in Italy and in the eastern Capitol, Byzantium, a highly emotional, ornamented architecture of interiors. The plans and forms were influenced by Rome, the ornament influenced by the richness and
conventionality of the East. Domes, apses, piers, arches, and walls are all covered with rich mosaics carrying in them a warmth and consolation for the worshipers. The teachings of Christ and the Disciples formed the principal subjects for these mosaics. These architectures we have learned to designate as Early Christian and Byzantine.

One need look at the gorgeous mosaics of St. Sophia in Byzantium, and St. Vitale in Ravenna of the Byzantine Churches; or San Clemente, Santa Maria Maggiori, and San Paolo Foru-Le-Mura in Rome or San Apollinaire in Classe and San Apollinare in Nuovo at Ravenna of the Early Christian churches, and marvel at their richness, warmth, and emotion.

But this paper is on the architectural ornament of facades so I shall not spend time discussing the qualities of these interiors but mention that they perhaps were the most moving, logical, and harmonious of all architectural interiors. Held to convention and symbolism by dogma and imperialistic supervision these mosaics were extremely interesting.

The exteriors of these structures have been altered in later times, and a study and estimate of their design is difficult. As one might well expect the design of the exteriors and plans of these buildings were influenced by the architecture of the Roman Empire.

The Early Christian churches such as St. Clemente, and Santa Maria Maggiori were based upon the plan of the Basilica of Trajan; while the Byzantine churches of St. Sophia and St. Vitale, followed somewhat the plan of the basilica of Constantine; the
former with nave and aisles separated by a colonnade and covered with a timber roof, the latter covered with vaulted roofs supported on massive piers.

Such plans formed the elements upon which the facade was designed. The Early Christian churches were covered by gently sloped roofs. The wall of the nave rose above the roofs of the aisles to allow clerestory windows. Thus results a central form with two attached wings of lower height. From remains it is seen that these facades were simply ornamented either by a sculptured doorway or colonnade. It is certain that ornament was sparingly used on the facades for the meaning of these churches was inside. The characteristic examples of this period also depended for their charm largely upon composition, accentuated by round arched openings placed at opportune points.

The Byzantine facades of St. Sophia and St. Vitale take the form of a dominant mass, the central dome, well composed and related to lower masses, the apses and surrounding aisles. The dome of St. Vitale is covered by a timber roof of octagonal shape, while in the design of St. Sophia the true dome is expressed on the exterior. The resulting composition is the building up of these logical, well proportioned surrounding masses to accentuate and give prominence to the important central dome. In these facades ornament is limited to the handing of brick and an interesting entrance treatment always aiding in the explanation of the structural form. The ornament is a part of the structure, organic ornament.
Form is the principal charm of these facades. Simple moulds about the openings and horizontal bands of mouldings or brickwork form the ornamental scheme.

When speaking of St. Sophia, F. H. Simpson writes: "None of the rich coloring which one generally associates with the East is to be seen, but the grand simplicity of the dome resting on its plain square base, the great scale of the projecting buttresses on the north and south sides, which stand out boldly as though not ashamed to proclaim their utility, and the great semicircular arches in between them, more than compensate for the absence of ornament and color." The shadows and play of light and shade on this facade is delightful, and the whole is composed as a complete unit with the central dome made the accentuated portion of the composition.

It is evident that during the Early Christian and Byzantine periods emphasis was placed upon a simple, functional, unified whole. Ornament was used to clarify masses and give a bit of relief to what would result in a plain surface. Forms resulted in the ornament for composition of other forms by casting shadow or by relating pleasantly with the others. Simple moulds, and design of brickwork aided in this ornament of forms. It is to the interiors that one must turn to witness the rich, glowing, exquisite ornament of this period.

Romesque.

As the popularity of Christianity spreads through the Roman world, the church gains in power, and the churches become the predominate structures of the age. It is to them that one must turn to discuss the architectural ornament of the period including the works between the middle of the sixth and beginning of the eleventh centuries which I will designate as Romanesque. Arthur Kingsley Porter * points out the difficulty in specifying monuments of this period to any one title but for my purpose and to eliminate possible confusion I shall designate the so called Carolingian, Lombard, Provincial, and Norman monuments as Romanesque.

In Italy we find the Romanesque growing out of the Byzantine and Early Christian forms. The facades become covered with illogical detail though retaining a slight feeling of unity of composition, while the piers are of the Basilican type with piers supporting vaults in place of the colonnades and timber roofs. The detail tends toward the realistic, though the conventionality of the Byzantine remained predominant.

In the case of San Ambrogio at Milan, in order to support the nave vaults the clerestory was omitted and triforium galleries with vaults nearly as high as the nave were added. Resulting from such a section a gable with a continuous slope was permitted on the facade. This facade of gently sloping, continuous gable over the great open arches flanked by campaniles,

with ornament limited to arch corbels along the rake of the roof, and between the first and second floors, with slender shafts between the arches and the carved stone caps of the arch piers, was one of the most charming that the Lombards ever designed. This facade evidently strongly attracted the designers of north Italy, for they adopted it even in churches where the aisle roofs were much lower than those of the nave.

Porter writes, "Such false facades as that of San Michele, Maggiore, Pavia, resulted-designs where the form of the basilica section is obviously belied. Even before this, it had been the custom in facades where the three aisles had been expressed, to raise the facade walls much above the actual roof of the church, perhaps with a view to making the church appear externally larger than it really was. This gross fraud continued to be practiced in the churches of Verona and indeed of all Italy, so that it finally became characteristic of Italian church architecture."

The facades of the Italian Romanesque became lacking in all sense of proportion and composition of design. Ornament largely became utterly irrelevant and lavishly spread over the facade. The wall space was covered more or less with an assortment of sculpture, arched corbel-tables, slender shafts with most abrupt and unexplainable endings, porches, pilasters, arcades, galleries, and occasional

1. A. K. Porter - Medieval Architecture
VI. P. 215
windows punched in the walls apparently by chance rather than reason.

San Ambrogio at Como is perhaps the most direct and impressive, with San Zeno at Verona intersecting with its attached porch; San Michele and Basilica became more offensive and absurd with inorganic ornament, while all sense of logic and organization is lost in the superimposed arcades of Lucen, Pisa, and Pisa, where apparently structural forms are used merely for decorative purposes.

It is in the mosques that the simplicity, organism, and logic of the Byzantines and Early Christians is best retained.

Thus it is seen that the characteristic of the Romanesque in Italy is inorganic, illogical ornament placed haphazardly upon the facades, and though a feeling of unity is somewhat retained, soundness and offensiveness is as a rule gained by untruthful, unorganized ornament.

In Provengal the influence of Roman monuments is more strongly felt. The triumphant arch form is the motif of the delightful porticoes of St. Gilles and of St. Trophime in Arles. There have rich, gorgously carved entrance features, though unstructural, being attached to the functional mass.

The cloisters of St. Trophime, Vaison, and Reuissac with their rich columns and caps are functionally ornamented designs, as their purpose is merely that of a covered walk. The intimacy and unity of the compositions are most delightful.

Such facades as St. Sernin at Toulouse,
Six-Points, and Avilis are structural in their elements. The ornament consists of set back columns and moulds in the heavy masonry walls. The doorways and rose windows are set deep in the walls. Structurally sound moulds, shafts, and caps give the facades a certain rugged, strong dignity.

The walled city of Carcassonne presents another phase of composition. Here the walls emphasizing strength, directness, and utility in design with little ornament, but that always functional, give a charming romantic silhouette against the sky.

In Normandy such churches as Abbaye-aux-Dames and Abbaye-aux-Hommes at Caen, St. Denis in Paris, and Jumièges present designs of delightful directness, and forcefulness. The ornament as a rule is composed as a part of the structure, placing emphasis upon the doorways, rose windows, and towers, which are to become the impressive masses reaching to the heavens during the Gothic period. In these designs a feeling of logic, harmony, and sentiment is always evident. Organic ornament is the characteristic.

In the design of Mont St. Michel is seen a pleasant composition of masses rising to a peak upon an island just off the coast of France; the opposite feeling from Carcassonne, yet both are impressive in their directness, simplicity, and composition.

In Sicily at Palermo and Monreale there develops a peculiar manner distinctly marked by eastern influence, color.
mosaics, and forms of the East are evidenced, but a feeling of structural satisfaction is characteristic of the ornament.

Through this period there begins to develop the pointed arch, which becomes the form upon which the principal ornament of Gothic period will be composed.

Summarizing, one finds an illogical use of ornament in Italy compared with a logical ornament in France. The designers of France returned to function, creating a new form to meet the new requirements of utility and engineering.

Gothic.

The desire for greater height, slender-ness, and emotional feeling demanded an advancement from the Romanesque manner. Greater height demanded lighter wall construction, demanded a structural system to carry the thrusts of the great nave vaults supported on walls rising high above aisles. The architecture of the Gothic period consists primarily of a peculiar structural system with its distinctive characteristic being that the design is determined by, and its whole strength is made to reside in, a finely organized and frankly confessed framework rather than walls. The designs of this period are based upon a system of balanced thrusts, as compared to the ancient system of inert stability, carried out in a sensitive artistic spirit.1 The system of buttressing the nave vaults by the aisle vaults was impossible when the clerestory became so tall. The answer was

the development of the flying buttress, which became characteristic of the side elevations of the cathedrals of the twelfth and thirteenth centuries. The problem of lightening the walls was solved by the designing of great pointed arched windows filled with tracery and rich stained glass which cut off the abundant light which would have flooded the interior, and gave a glowing warmth to that which was filtered through it, retaining that feeling of emotion and contemplation so essential to the religious doctrines of the great Catholic teachings of the age. This period we know as the Gothic.

It is to the cathedrals that one must turn for a study of this period; for just as the pagan temples stood foremost in the architecture of the Pre-classic and the Greek periods, public buildings to the Romans and Commercial buildings to the present, the church predominated the life of the medieval period in learning and in social life. The church stood dominant in the panorama of the city as in life.

The western facades of the great cathedrals with the problem of the lower levels of the side aisles in elevation solved by terminating the plans of the aisles with the two great towers presented the part of a central portion rising to the height of the nave composed between two towers, giving an appearance of strength and completeness to the whole design.

The weight of this great retaining wall was lessened by the placing of a rose window which when filled with tracery and colored
glass permitted the last rays of the fall-
ing sun to send a warm glowing beam of
light down the nave toward the chancel add-
ing to the dramatic composition of the
church. In the Cathedrals of Paris,
Chartres, Amiens, Rheims, and Rouen, the
development of Gothic ornament can be seen.

In the design of the west front of the
Cathedral of Paris there is a directness
and power which is indeed moving and im-
pressive. The three great doorways
punched directly in the wall with rich
mouldings of carved figures accentuating
the depth with the horizontal band of
figures carrying completely across just
above the apes of the arches, but not
destroying the verticality of the whole
composition. Above this is the rose
window with two arched windows in the
towers, then with another horizontal band
formed by an arcade of pointed arches
forming a screen above the roof of the
nave. Rising above this on the ends are
the blunt impressive towers which have
caused much question as to what the de-
sign might have been if the spires had
been added. In this facade there is seen
distinctly a functional composition de-
spite the two counteracting horizontal
bands. The whole is an impressive, uni-
ified composition decorated with logical,
harmonious ornament.

Amiens becomes a bit more confused
with the slight projection of porches
emphasizing the doorways and horizontals
counteracting the vertical. The towers
become more richly ornamented, and the
whole composition loses somewhat the charm of simplicity so impressive in the Cathedrals of Chartres and Paris behind a screen of excellently carved ornament. The flying buttresses become ornamented with small spires and lose in part their structural significance.

The screening of structural form by exquisite detail is carried on to a greater extent at Rheims, and in the design of the Cathedral of Rouen all sense of function is lost. Even more extreme is the facade of St. Maclou at Rouen where a porch of five arches completely disguises the facade. These later churches are known to us as the flamboyant manner of Gothic design, the utter disregard of structure and logic for the ornate.

The detail becomes very realistic, Grotesques, gargoyles, and floral designs of a most realistic nature replace the conventional symbolism of the Romanesque. The heads, draperies, and poses of the sculptured figures of the doorways and porches present an extreme contrast to the positive, conventionalized symbolism of the Byzantines. The imperialistic architecture of Theodosius' reign has passed through the control of the monastery during the Romanesque to the hands of the Community in the Gothic era.

Thus it is seen that the Gothic architecture of France develops to a point of logic and function of ornament, then to a point of complete mastery in the handling of material, at which time a lacelike, intricate mass of detail completely camouflages the structural fundamentals of the compositions.
Just as the classic manner was never able to gain a foothold in France so too was the Gothic manner never able to gain a dominating effect upon the architecture of Italy. Forms remained classic in proportion and character with Gothic detail imposed upon them.

The remarkable design of the Cathedral of Milan, the largest of Gothic Cathedrals is but a Roman form with Gothic ornament superimposed upon it. Gothic form is lacking while the vast amount of decoration and its thousands of statues and pinnacles lead to confusion and disorganization. Impressive in its magnitude, it lacks the dignity and quiet of Paris and Chartres.

The Cathedrals of Florence, Siena, and Orvieto. with their ornate marble or terracotta facades of Gothic arches and detail lack the directness and functional characteristics of a Gothic structure. The Italian designers, try as they may, failed to grasp the feeling and true spirit of the Gothic manner of design.

In Spain is found a more logical use of the later Gothic. The Cathedrals of Burgos, Toledo, and Salamanca are ever ornate, but structure is not as obscure as in the case of Rouen in France or Milan in Italy. There is an apparent return to form with inorganic ornament emphasizing structural members or important problems of utility.

The powerful, functionally composed, simple design of the Cathedral of Barcelona is a welcome relief from the over ornate designs of the Flamboyant period in France and Italy.

Here are Gothic designs different from those of France, not an application of Gothic
detail as carried on by the Italians but logical, harmonious compositions attain- ing Gothic dignity and spirit, an individual Gothic built upon the principle of ornamented structural forms.

The Cathedrals of Fribourg, Ulm, and Antwerp, and the numerous town halls, such as at Brussels and Antwerp, are but a continuation of the ornate Flamboyant manner of France. A lacklike, inorganic, confused, mass composition is characteristic of these structures. Functional form is lost beneath clothing of lace. The Cathedrals of Cologne, Strasburg, and St. Gudula, though direct in form, have a mechanical feeling lacking the freedom and life of the French.

In England the general characteristic is the losing of the form of the plan and section completely behind an arbitrarily designed screen generally of poor composition, poor technique, poor taste, and weakness of form.

The Cathedrals of Salisbury and Canterbury are more simple and direct. Form is evident in these examples, but the designs of Wells, Lincoln, Litchfield, and Ely are overrun with horizontal bands of ornament obscuring all sense of the vertical structural members, and resulting in confused, inorganic, unpleasant forms.

From this brief survey it is seen that the ornament of the Gothic period was at its height with the Cathedrals of France during the twelfth and thirteenth centuries, when ornament was fundamentally structural or harmonious with structure. During the later periods ornament tended toward confusion in composition and disguising of structure, and though a picturesque,
romantic feeling was gained it lacked the
clearly and dignity of such churches as
Chartres, Paris, and Amiens.

Renaissance.

As one might well expect, the return
to Classic tradition found willing and apt
champions in the persons of the Italian de-
signers. Never had the Gothic spirit been
natural, understood, deeply rooted in this
land of classic antiquity and tradition.
When during the fourteenth century men's
outlook changed somewhat from that of another
world to life in this world, becoming more
interested in science and machinery and
learning, it is not surprising that the
architects of the Renaissance in Italy
returned to the classic forms of proportion
and ornament for their inspiration. To the
Italians it was not to be a period of cold
copying of the monuments of antiquity but
rather to grasp the spirit of the past and
with it create a new architecture involving
new structural principles, changed problems
of utility, and an individualistic character
surpassing any previous age. One might expect
such tendencies in the architecture created
during a scientific age. It is in the
Palaces and public buildings as well as the
churches that the characteristics of the
Renaissance are witnessed. It is in the
Renaissance that the individual in archi-
tecture rises in importance.

The universally accepted date for the
beginning of the Renaissance is 1420 when
Brunelleschi was appointed architect to com-
plete the dome for the Cathedral of Florence.
The spirit of the Renaissance was evident before this time; just as our modern period began to have its problems arising and unsatisfactorily solved some years before we designated a project as modern, so too was the embryo of the Renaissance some years before the design of Brunelleschi’s dome. The Dome primarily is an engineering project which was characteristic of so much work of the period. Its great mass, being still the largest dome ever erected, dominates the design and has little detail, being chiefly a structural mass.

The Palace architecture of the Renaissance develops from a rustic, functional design with no ornament save the voussoirs about the openings and balustrades between the floors and over the simple cornices, such as the Pitti Palace in Florence, mother of Brunelleschi’s designs, to the more refined Palaces of the Strozzi by Di-Francesco and the Riccardi by Michelozzo, where the rusticated stone becomes lighter as the building rises in height. These structures are finished off at the top with rich classic cornices, the one of the Strozzi Palace being designed by Il.Cronaca. Separating the floors is a decorative band of several light mouldings and dentils. The voussoirs over the openings and the arched windows divided into two parts by a central column supporting the smaller recessed arches of each half completes the ornamental scheme.

The next step in that of such Palaces as the Rucellai in Florence, designed by Alberti, with its superimposed veined pilasters and entablatures. This brings in the use of structural forms used for purely decorative purposes. This practice along
with that of windows with their rounded and triangular pediments and the cornice become the predominant ornamentation of the palace architecture. Bramante's designs of the Cancelloria and Grimani Palaces in Rome have all these elements; while San Gallo's Farnese Palace and Peruzzi's Massimi Palace in Rome, Raphael's Pandolfini Palace in Florence, and Vignola's Farnese Palace at Caprarola use some or all of the forms of ornamentation.

The churches develop from such Vanessaed facades as San Spirito in Florence and San Andrea in Mantua where a sense of logic is evidenced to the over ornate illogical facades of Vignola's church of the Gesù, and the inorganic poorly scaled facade of St.Peter's added by Maderna to Michelangelo simple, more logical dome-crowned structure.

Another prominent decorative form of the Renaissance is the Vanessaed colossal order used extensively by Michelangelo, such as seen in his Capitol and Capitolino Museum in Rome, and by Palladio in his designs of the Valmarana Palace in Vicenza and the churches of San Giorgio Maggiore and Redentore in Venice. This order includes two or more floors in its height.

The Villas such as the Farnesina by Peruzzi, Raphael's Villa Madama, Ligorio's Villa D'Este near Rome, Palladio's Villa Capra at Vicenza, and Vignola's Villa Lante at Baginnia show a simple, logical use of ornament.

San Savino's Library of St.Mark's is a delightful composition of an arch form within a bay formed by engaged columns. The space resulting between the arch form
and the angles of the rectangular bays is delightedly filled with sculpture, while the frieze is richly carved with a garland treatment.

The later architecture of the Renaissance, known as the Baroque, as at Santa Maria Della Salute in Venice, Santa Maria di Loretto, Santa Andrea delle Vele, and Santa Maria in Campitelli in Rome, shows an absolute disregard for structure in favor of scrolls, round and triangular pediments, great orders, cornices, and other exaggerated and playful detail.

All through the Renaissance, though many of the structures may appear at the first glance as alike, a sense of the individuality of the architects is predominant. Georges Cromort writes: "The first characteristic of the Renaissance was inexhaustible variety. It was as much a result of the artist's personality as of the very broad spirit which was lent to the interpretation of the antique. The distinct sensation of constant joy, with which their work was studied in its smallest detail, is certainly one of the causes which make it possible for them to exercise over us, at first sight, such a strange and powerful seduction." 1. Classic detail is the basis of the ornament, but the different architects solve their problems in their own manner. Ornament was in the early period sparingly used, being used to emphasize openings, termination points, and to break up wall surface. As the rule it is

1. Georges Cromort - Italian Renaissance Architecture, translated by E. F. Waters
applied ornament, and in the later periods this practice passes out of all bounds of logic, harmony, and unity. The Renaissance primarily is a period of engineering advancement, and the ornament fails to carry that sense of appropriateness and harmony so evident in the old classic and medieval periods. A rebirth of the Roman ornament but it lacks that "punch" of the Romans.

The Renaissance manner never became so clearly expressed in the designs of the French or English. In both countries the detail of the Italian Renaissance was superimposed upon forms that were medieval in character. Where in the Renaissance of Italy, a scientific problem reigned supreme, with the detail of classic antiquity being the spirit of ornamental solutions, the Renaissance of France and England was merely the acceptance of Italian study and produced in those countries. There was no striving for new expression as was evident in the works of Italy. Rather it was the accepted solution of the Italians used upon English and French buildings. In them, there is not gained the feeling of individual endeavor, as in Italy, of ornamenting new forms with new ornament influenced by the style which had expressed the spirit and life of the Romans over a thousand years before. In Italy the ornament was not a copy of antiquity but rather the spirit of classicism. In France and England the Renaissance was the manner in vogue rather than in spirit.

Such Renaissance designs as the east facade of the Louvre; the facades of the Invalides, the Pantheon, and the Magdalene in Paris; St. Paul's Cathedral and the
Benqueting Hall in London; and the Trinity College Library at Oxford show a rather delightful sense of Renaissance form and ornament, but they have the appearance, and are felt to be, Italian designs erected in France and England rather than architectural solutions expressive of these people. They lack the fresh spirit and forcefulness of the Renaissance in Italy.

The Chateaux of France, medieval in form with Renaissance ornament, are more crisp and expressive of creative ingenuity than the more complete, more perfect Renaissance examples mentioned above. The Georgian manner in England is interesting for its desire to gain a formal simplicity in brick, yet with ingenious naivety or stupidity.

It was natural that the French and English should absorb the baroque tendencies of the late Italian Renaissance. The results were the designs of the nineteenth century, after three hundred years of following the baroque manner the Paris Opera House, the Opera Comique, and numerous Peruvian and London hotel designs covered with illogical, attached ornament of poor taste.

It can not be said that the Renaissance designs of France and England lacked merit. They rather lack individuality and spirit, being merely the use of an alien manner of design just as the Gothic had been accepted as the manner in vogue, not in spirit, by the Italians.

Interlude.

Since the close of the highly emotional
period known to us as the Gothic, which was brought to a close near the end of the fourteenth century, when men's tendencies and outlook turned from faith toward science, there has been very little creative architecture when examined for beauty of design. Throughout Antiquity and the Middle Ages there was a continued delightfulness of creative effort both from the standpoint of design and engineering. Through these ages the builders were learning continually new structural mediums and were creating distinctive, aesthetically pleasing designs, which truthfully explained the structural elements.

The Renaissance, aesthetically speaking, returned to Classic tradition, but in reality was a period of scientific research, a period when men were striving for knowledge in the field of science. Knowledge replaced faith as the criterion of life. There were designed through this period many pleasing and charming structures, but they can scarcely be considered as creative.

Organic expression of structure seemed to be secondary with the great men of the Renaissance. Their composition, proportion, and detail, in the main, was delightful for they were trained under classic tradition and influence, and it came natural to them to follow the formulas of classic design. Always they seemed more interested in the intellectual element.

After the middle of the sixteenth century architectural design declined
rapidly along the lines of the baroque and has not yet developed to a period of creative endeavor. Since the decline of the Renaissance architecture has made great advancement in the engineering field. Through the seventeenth, eighteenth, and nineteenth centuries architects let the aesthetic become more and more subordinate to the structural. So busy were they developing scientific knowledge that by the middle of the nineteenth century, architecture can hardly be distinguished as a fine art. The mother art from whose breast came the other arts, painting and sculpture, had degenerated to a crude, most unpleasant lot of steel and concrete. That dignified, stately art of the past had become a common, unpleasant shell to enclose life or work of confused and uncertain worth.

About the middle of the nineteenth century the first steel building was erected in Paris. Rapid developments followed in steel and in reinforced concrete but all the while the aesthetic qualities of the buildings were becoming more and more horrible. The ornament consisted of crude bits of cast iron, stone, and terra-cotta cast at random upon the facades. Mass and proportion became awkward and unpleasant. I do not mean that these structures were all uninteresting, but they were universally less interesting and less refined than the works of the Italian Renaissance, from which they claimed a continuity.

The early architects in America realized this approaching decline. This resulted in the establishment of a school founded
upon the Classics led by Bulfinch in the North, and Latrobe and Jefferson, the Greek revivalists in the South. The designs of these men furnished a relief from the unpleasant late Renaissance work being done in Europe and America at the time and resulted in a simple, dignified, refined architecture, but did not meet the requirements of the fast advancing knowledge being acquired of structural mediums and the necessitated height of structures. But while these men were doing their comparatively few buildings, architectural design in commercial building was continually falling to a degree of poverty of imagination and disgraceful indignity.

Later there followed the school led by Richardson, founded upon the works of Romanesque France and Spain. With towers and low, broad arches in fairly well designed Romanesque detail, Richardson developed a truthful, bold, and solid architecture which supplied a relief from the flimsy, inadequate designs of the time. Quite naturally architects, craftsmen, and carvers joined in the new enthusiasm, but just as the followers of Michaelangelo failed to grasp his feeling this host of imitators of Richardson caught his mannerisms but not his spirit. There resulted the vast number of obnoxious town halls, jails, libraries, post offices, and college buildings of the eighties.

Architecture perhaps reached its lowest ebb throughout the world in the closing quarter of the nineteenth century. In America on every hand there were being erected unpardonable monstrosities such as
those of Frank Furness, J. C. Hill, R. H. Robertson, Cummings and Sears and other imitators of Richardson. Richardson's manner itself had been a revival, and revivals have never advanced creative efforts; but the works of his followers lacked his feeling of strength, sincerity, and simplicity.

Young men who realized that such a manner of design could never develop into a creative style were not satisfied with these crude cast iron, terra-cotta, stone, and brick designs of commercial and public buildings which were being run through the offices as through a factory. These men realized that the adequate, satisfying solution lay not in the past but must be created of the present; that the new scientific advancement of structural mediums demanded a new system of design; that design must again be created as a balance between men's spiritual and physical needs — not arbitrarily imposed upon them.

Designers at this time were torn between two forces. One was dominated by that scientific power of the nineteenth century; the aesthetic seemingly was disregarded for the sake of science; truth was the supreme principle; the other aimed to establish an independence of art; a reaction against science. As Fiske Kimball tells us: "One typified the loving surrender of man to nature; the other, his victory over nature!" It is indeed difficult to tell which group was creating the most unpleasing designs; the one creating plain, poorly composed, nude structures, the other leaning toward romanticism and the picturesque, a design with no relation to function. Both methods resulted

1. Fiske Kimball - American Architecture
p.147
in dull, uninteresting facades and offered no advance in architectural design. There then appeared those men who realized that a new manner must be found to balance these two forces. It is in the works of the young men who broke away from the "Plan factories" that the first evidences of a new manner of architecture and consequently architectural ornament are felt. Through these years since the last decade of the nineteenth century a new manner has become rather well established; but its advance has been definitely hindered by the continual lingering of that conflict between truth and beauty. There have been, until within the last decade, comparatively few designers who were willing or capable to attempt to combine these two elements. There was always a definite tendency to one or the other, either a dull and box like, or an over-ornate untruthful, architecture.

But there were those few men of the latter portion of the nineteenth century who had faith in their convictions, those few who were strong enough to resist the turn toward classic detail which became so strong at the close of the century; they slowly created a new manner in which composition, ornament, function, and engineering were thought of in equal terms.

These men attempted to solve the problem in a well balanced way. If architecture was the art of utility, truth, and beauty, it must be treated as such; no one portion could be emphasized above the other; architectural design must again be created upon fundamental principles. That was the manner in which the architectural problems
of the pest have been solved. These men realized that this must again be the starting point in creative efforts.

America quite naturally was the ideal location for the creation of a new style. Here was a most rapidly growing nation, a youthful nation which had no long architectural precedent, a nation where all its architectural efforts had been copied, a new nation, therefore which should create its own style and manner, a fresh, true expression of its spirit and learning.

While in the East there was a strong tendency toward the assimilation of European tradition and culture, in the West there was a fresh, vigorous, civilization, a civilization more free from the contacts of European culture. There were the broad plains which demanded a new architecture, and it is in these localities that the first notable works of a new manner were erected.

The great fire left Chicago a ruin; a new city was to be built. It became the opportunity for those young men who felt the necessity of a new manner. These men were influenced greatly by the writings of Pugin, Ruskin, and Viollet-le-Duc, men who urged a return to "truth! Pugin wrote: "There should be no features about a building which are not necessary for convenience, construction, or propriety;" "All ornament should consist of enrichment of the essential construction of the building." Viollet-le-Duc wrote: "There are two ways of expressing truth in architecture; it must fulfill with scrupulous exactness all the conditions imposed by necessity—employ materials with

1. Fiske Kimball - American Architecture P.149
due regard for their qualities and capacities." Ruskin's judgment of all edifices lacking structural sincerity as "unnatural and monstrous" is familiar to all of us. It was with such thoughts and intentions in mind that a small group of architects, centered in Chicago, began discussing and experimenting in a new manner of design and ornamentation.

At the same time in Europe, architects realized the necessity of a new architecture. The Baroque had passed to utter falsity and after the Paris Opera, impressive despite its inorganic and weakening ornament, became absurd and unbearable.

A new architecture was demanded by life and science, and with this realization history comes to a close. The answer to this demand is contemporary and must be treated as such.


THE IMMEDIATE PAST. A PERIOD
OF TRANSITION.
In Chicago during the year 1885 a commercial building was designed and erected which I believe was one of the first possessing a feeling definitely apart from those examples of poor taste that were created by the followers of Richardson. In that year the architectural firm of Adler and Sullivan designed a building of six floors on Randolph street for Mr. Martin Ryerson. In its design is seen a definite creative effort upon the part of Louis Sullivan, the designer of the firm. The birth of a manner of ornament, designed for the current structural forms, is observed. The ornament here definitely expresses the structure. The ornament in the panels between the windows of the different floors defines the structure, yet it does not break the desired effect of grouping four floors into a single bay. Below this rather delightful bit of composition is seen lingering likeness to the Romanesque revivalists. The structure is supported on four columns and their grotesque caps with show windows between which forms a weak appearing base. The sixth floor is treated as an attic story and nicely tied into the design by an interesting band of ornament. The design above the first floor is that of decoration applied to a steel frame, not the feeling of an attempt to disguise a structural system. For that reason I feel this building, however insignificant it may be, is a definite step in the development of architectural ornament in America.

The ornament is romantic, based upon the geometric forms of the medievalists.
The study that Sullivan gave to the works of Pugin can be sensed in the ornamentation which he placed upon this structure. The effect of the teachings of Viollet-le-Duc is evident. The manner of ornament, except for the unfortunate lower floor, is completely different from the inorganic trash of the nineteenth century.

The same year in the East there is found, at Lenox, Mass., a fireplace designed by J. Ph. Rinn for the living room of the house of Dr. R. C. Greenleaf, which shows a break from the manner of the time. A great arch opening out into a brick mass resting upon a base frieze, with a minor arch set back, forms the partiti. On the arch is carved a group of figures. Sculptured lions form the base and slender conventionally carved birds flank the arch. The form and decoration of this fireplace shows a feeling of Assyrian design. Though greatly out of scale with the room in which it is placed it is interesting.

In 1886 the Randolph Apartment house in New York designed by T. H. Clark shows the desire to break from the conventional manner of the nineteenth century, but the result attained is little better, although the ornament does appear more direct and simple. An importation of the Beaux Arts teaching in France is sensed; the transferring of historic forms to contemporary structure. The application of Moorish style or ornament to these classic forms is indeed out of character. The building shows urge for a new system of ornament. Here the structural members are more clearly defined but the choice of ornament unfortunate.
The following year the architects Shepley, Rutan, and Coolidge designed a warehouse in St. Louis for John A. Loimberger in which directness of structural system is the ruling element. There is a distinct lack of ornament, a lack to the extent that the building is almost unpleasant. It is the type of structure of which so many were being erected under the pretense of economy. This type building is based on a decided functional character, and ornament is crude and inadequate.

Another design by Rinn that proves interesting is the Bennington Battle Monument, a simple obelisk-shaped structure, with the only decoration that of a series of five slender slits. These slits appear about three quarters of the way up the structure. The design is delightful in its simplicity and severity. The scheme might have been extremely charming if the slits had been longer and more evident. At this time numerous buildings of the character of the warehouse in St. Louis, mentioned above, were being designed. Structures with a tendency toward directness and simplicity replace the inorganic, unpardonable rubbish of the Romanesque revival period. They are dull crates which show no creative ability in the study of either proportion or decoration, the only apparent attempt seeming to be toward engineering.

The design of J. S. Buffington for the Pillsbury Science Hall in Minneapolis in 1888 is of distinct medieval feeling, yet there are indications which point toward those dream-like fancies which he is to design later. In this design there is felt that struggle of the time, the attempt to
dispense with the Romanesque detail cluttering public buildings. The desire for a manner of ornamentation fitting to the post and lintel structural system is evident, but there still persists the romantic desire for towers, spires, and turrets whether they have a place in the design or not. The beginning of the transition from the Richardsonian school to that manner typical of Frank Lloyd Wright is significant.

It is in the following year that the more fantastic designs of Buffington make their appearance. Theragon Apartment House in Chicago and an office building in Minneapolis illustrate a creative effort on the part of this architect. The designs are theatrical but are an extreme break toward a new manner of ornamentation. The detail is rather well centralized, simple and direct. This theatrical manner clears the atmosphere of candy-like architecture of the time — that is, architecture created solely upon the principle of outward appearance, rather than a straightforward ornamented structural form. Still there is seen the lingering hold of medieval detail. Though the feeling is toward a new architecture, the detail persists as Romanesque, and the application of the ornament upon the form complicates and confuses the composition.

Another of Buffington’s romantic simplifications of medieval manner is seen in the design of the Storage Warehouse and Deposit Company building in Minneapolis built two years later. The detail is not used in a medieval manner but is in a form
showing medieval influence, and is a more organic use of decoration. The rounded corners of the design are impractical, but the study of simple strong walls with the important features such as the entrance and a well placed decorative band at the top are refreshing. Simplicity and directness have definitely gained a hold over more use of abundance of detail.

The same year he plans a rather interesting straightforward design in the case of the drill hall of the University of Minnesota. Broad, flat arches replace the rich, clumsy arches of the immediately preceding period. This design shows the elements such as are more recently seen in the works of Dodek in Holland.

In 1881 Buffington's design for the Security Bank in Minneapolis has elements which are really dignified and impressive. A frieze rather poorly composed but well placed is near the top. A well proportioned door with a tile field decoration and niches with canopies over them form the entrance feature. A plain, well-composed entrance punched in the simple wall along with a well composed frieze would have constituted a directness and simplicity of the facade, which I believe, would have been most delightful.

The design for the proposed World Building in New York in 1889 by R.H. Robertson perfectly illustrates the lingering feeling of the Romanesque revival and the unfortunate results in ornamentation: a tall building in the Romanesque manner. The structure is divided into three parts which seem to be unconnected. The use of Romanesque arches stacked upon one
another is impossible in appearance after five or six floors. The monotony of such a design would be unbearable. The use of a vertical feeling for the next floors is not tied with the lower floors, and the numerous pinnacles and turrets above weaken what charm might have been in the lower portion. Though the ornament of the three sections is not unified nor the divisions appropriate to each other the decoration does tend toward explaining and supplementing the structure more than the monstrosities of a few years earlier. The desire to create a new architecture is seen, but the ability to do so is lacking.

Designs like that of the Memorial Library at Lexington, Kentucky, by Willis Polk, illustrate the desire for a new manner of ornamentation in which the Romanesque feeling remains. The romantic trend of the revivalists had been too deeply imbedded in the customs of the public and the designers of the time to be broken away from abruptly. The public had learned to think of a post-office in the terms of a structure covered with Romanesque detail of stone, brick or terra-cotta. These newer designs retain the romantic feeling of the revivalists, but the ornament takes a much more organic position. It becomes more centralized, more simple and gives to the structure a more straightforward appearance. Important points in the building are being given emphasis by the use of ornament. The irrational is being replaced by the rational.

The design for a tomb for an illustrious architect by Julius Harder shows a refined, dignified manner, which is unusual at this
time. The influence of Greek design is apparent, the simplicity, directness, and dignity being refreshing during this period of over-ornamentation. This along with early designs of McKim, Mead, and White forecast the momentous movement toward a classic revival which will be foremost for some years after the Chicago World's Fair of 1893.

The competition for the Cathedral of St. John the Divine held in 1889 in New York gives a clear study of the tendencies of architectural design during the late eighties.

The design of Carrere and Hastings possesses a certain strikingness in its attempt to gain the height and slenderness of Gothic character with the use of Renaissance detail. The composition is rather well tied together even though numerous cupolas project above the major mass, but the form and choice of ornament causes it as a whole to be unsatisfactory. The lingering of the fictitious manner of ornament of the third quarter of the century is shown.

The forcing of Gothic detail upon a Renaissance form is the fault of the design of T. P. Chandler, Jr. The ornament of the dome becomes monotonous. A label-like character is gained, which greatly weakens the structural character of the building, without the careful handling of the detail which characterized the late Gothic cathedrals, where an overlay of exquisitely carved ornament masked the structural form. In this design structure is lost.

The design of W. S. Fraser was done in the Romanesque manner but that delightful feeling of slenderness, and the divine so
characteristic of the Gothic period is completely lost by a strong horizontal tendency. The design is confused and complicated by the numerous comparatively small horizontal bands of windows in the aisles, clerestory, across the front, and about the tower. The structure is characteristic of the Romanesque revival in America rather than of the eleventh and twelfth centuries. The design lacks the slenderess, serenity, and dignity essential to a great religious edifice.

The design of Bertram G. Goodhue shows an early study of this man's work. The design retains the detail of the Romanesque and Gothic styles but is an attempt at a new manner, a study of masses with important points emphasized by detail and the unimportant portion left plain. A feeling of solidness not evident in the other designs is gained here. The design is crude, but the manner that was to be developed by Goodhue is forecast in it.

The remaining designs show merely a conglomeration of detail of historic styles cast haphazardly upon stone walls with seemingly no respect as to place or use in defining the planes and forms of the composition, or even in gaining a pleasing composition of detail.

In the year 1890 Eckal and Ham in a residence for S. H. Nave in St. Joseph, Missouri, present a rather unfortunate design in the manner of Buffington. It can not be said that the design was influenced by Buffington, but the result is rather like an imitator copying the creator. In an attempt to gain organic
architecture and to ornament it, architects have used a conglomeration of ornament showing Gothic, Romanesque, and Eastern influence. The result is confusing and unpleasant, and though simpler than inorganic ornament is equally as unfortunate. The romantic tendency to over-ornament still persists.

The study for the Fremont School building designed in 1891 by J. Parkinson is after the manner of Buffington. It is a building in which broad, simple arches were used but with an unnecessary central tower incorporated, which caused a loss of simplicity. The study of the window openings is poor but the structure is more direct.

The design for the Equitable Life Assurance Building in Seattle by Parkinson is an unsatisfactory handling of an office building. The lower two floors are rather interesting in their simplicity but are marred by the entrance treatment where Renaissance detail is used in poorly composed mass. The slender arches running through the next six floors prove a completely unsatisfactory solution of the clothing of the steel frame, while the roof and attic story appear crowded and confused. The towers have no excuse except as lingering romantic trends of the earlier period of American architecture.

It has been seen that during the eighties the major problem of architectural ornament has been the struggle and inability to break away from the Richardsonian manner of design. The movement has been toward a simpler more direct, organic manner of com-
In the buildings of the Chicago School world is seen a clear revolt against the principles of the Nineteenth Century. Though the forms in the buildings of the Chicago School are far more simplified than those of other architects, it is not the simplification of design that is the most interesting feature of these buildings. It is the simplification of the direction of design. In the direction of design, the principle of function has been carried to its extreme. In some of the buildings, function has been so simplified as to be almost meaningless. The feeling of the buildings is evident in the great courses, through over-simplification, and in the great position. The material influence, the architectural movement, and the walling in of the eighties or the Gothic tendency in America have been of assistance to the American architect. The Gothic tendency in America has been the over-riding influence. The Gothic tendency in America has been the over-riding influence.
pleasant proportions are common, the whole
presents a dignified, monumental, and uni-
fied composition. The buildings as a group
are restrained and direct in their compo-
sition and even such unnecessary bits of
detail as the poorly attached portico and
the baroque towers of the Machinery Building,
the poorly designed dome of the Administration
Building, or the baroque Renaissance of the
Horticulture Building do not appear offensive.
The Fine Arts Building, the Agriculture
Building, the Liberal Arts Building, and the
many others tied together by numerous colon-
ades and porticoes form a delightful compo-
sition which, though not creative, results
in the casting aside of that gingerbread in-
organic trash of the medieval revivalists.

In this group there is an attempt to-
ward apparent simplification, a decided break
away from romanticism. True these structures
were temporary and in that respect untruthful,
for the impression given was that of permanence.
But the real importance, of these buildings,
lies in the fact that they turned the archi-
icture which followed toward classicism.
The buildings at first were merely contempo-
rary forms clothed in classic detail, but out
of this beginning there grew slowly a new
classicism, an architecture based upon simple
well composed masses characteristic of the
classic but taking into account the new
principles of structure and usage rather than
merely ornamenting with classic detail.

Thus from this time forward the most
pleasing and interesting contemporary archi-
tecture will be designed along one of two
paths, namely that of classicism and that of
romanticism. The tendency will be toward
the simplification of these manners till a new architecture is born. Truth, reason, and the organic will replace the untruthful, inorganic, and irrational. Great architecture of today is that which pleasingly combines the principles of engineering, usage, and ornamentation, an attempt being made at reaching a balance between these problems. There will be attempts at oddity under the disguise of functional architecture but these attempts will be overbalanced by sincerity.

Louis Sullivan designed for the Fair one building, the Transportation Building, and it did not keep in key with the plan of the whole and appears out of place. For this reason this design should not be considered important. A richly carved, flat, deeply recessed arch resting upon a rich frieze-like base cut into a flat rectangular mass forms the entrance motive which seems to have little or no connection to the building. This design of arch form built of wood is even more untruthful than the permanent appearing buildings of the great court. Sullivan’s struggle for a more organic architecture is here temporarily defeated by inorganic romanticism.

An example of a design created in the opposite manner, that of plain mass composition, is seen in the design of W. L. Steedart for the entrance to the Natherson Barracks in Atlanta. Here an attempt is made to gain impressiveness by a study of plain surface, using the triumphant arch motive with two wings of smaller masses added. The result is most unsatisfactory both as a study of mass and of the handling of ornamental detail.
In the years immediately following the Fair; those years when the classic revival was doing exactly the same as the inorganic revival had been doing a few years before, these years before the classicists were seeking a new classicism but merely casting classic detail profusely on the surface; there appeared a few who dared to carry forward the new manner resulting from the simplification of that inorganic romanticism of the followers of Richardson. The three of utmost importance were Louis Sullivan, who had begun before, and even dared to design a building in his manner for the Exhibition; Frank Lloyd Wright, who carried forward the teachings and ideals of his master, Sullivan; and Berthan Goodhue. These were indeed lean years for these disciples of the new manner, but these men were able to find those clients, or perhaps these clients found them, who were not satisfied with the manner set forth by the fair, and slowly the tide began to turn toward a more organic, simplified, truthful architecture. These men who worked in the organic romantic manner led the way but the mere copying of classic detail is also to give way to an organic classicism.

The design for the St. Nicholas Hotel in St. Louis, by Louis Sullivan and Chas. E. Ramsey show a more direct, organic use of ornament. The projecting bays tend to confuse the design but the lower and upper floors are quite nice. The rich balcony and colonnade effect of the upper floor is quite pleasant.

The Winwright Building at St. Louis designed by Sullivan, perhaps has the most organic use of ornament upon a steel frame that had been seen
up to this time. Though the lower floor is largely composed of glass, the combining of the first and second floors into a unit forms a solid with an appearance capable of carrying the floors above. A rich field of ornament surrounds the main entrance. The floors above have a rather rich finely balanced feeling between the vertical and the horizontal, with the vertical slightly emphasized. The whole is topped off with a wide rich band of ornament of a foliage design and the same type cornice as the Transportation Building. The whole is a delightful straightforward, organic composition with Sullivan's romantic ornament placed in most advantageous spots upon the structure. Here is seen a workable new manner of ornament created for the time. It was not a historic style of ornament being used upon a new structural system.

The Union Trust Building in St. Louis is not nearly so satisfying as the Wainwright Building. Here Sullivan has done just what the majority of the architects of the day were doing. He here seems lost while in the Wainwright Building he appeared to have complete control over his design and medium. The upper floors here are most awkward and unpleasantly proportioned, though the lower portion might have been quite charming if the projecting figures had been left off and the round windows in the mezzanine were cut out. The ornament is placed, however, in advantageous locations, richly decorated at the lower levels and more plainly so at the upper levels.
The ornamentation of the Guaranty Building in Buffalo has the same fault as the Union Trust Building. A rather interesting pleasant central portion is marred by the weak treatment of the first story and the inadequate cornice and handling of the arches and round windows in the upper floors. The manner of pattern work over the first two floors and a simple equal treatment of the office floors is most interesting and logical, but the lack of solidity and poor composition of detail in the lower stories detract entirely from the possible effect. The idea is most evident but the ability to handle it is insufficient.

In the design for the National Academy of Design in New York by M. J. Hardenberg and the design for the U. S. Public Building in Cheyenne by James Taylor are seen the realization that the mere application of classic detail will not satisfy the current structural system. In both the attempt is made to justify the use of classic ornament. The use of columns and decoration in positions where it does not read the structure is abandoned. The added distance between vertical members is accounted for. Both are interesting in their attempt to account for the structure rather than to merely cast upon the structure classic detail.

The design for the Memorial Arch at Stanford University by Shepley, Rutan and Coolidge is a most unpleasant one. The use of the frieze and heavy medieval fortress forms give a heavy overbalanced effect to the design. The lower portion is rather direct and pleasing and perhaps would have been delightful if a more simple finish had been given the top and perhaps the frieze been at the base. The whole is very much out of scale with the surrounding buildings.
The ornament of the club-house of the New York Athletic Club by W. A. Gable shows the influence of Sullivan but the composition of the ornament and its use is not nearly so refined and interesting as that of Sullivan. Here the ornament is spotty and does not seem to be worked as a complete unit. It breaks up the unity of the whole design. The design itself is very poor and the ornament being spotty emphasizes its poor qualities. Gable seems not to have understood the use of ornament, and in the space between windows where Sullivan handled it so nicely in the Reinwirt Building, the same idea here seems utterly misplaced. The panel between the window is a spot rather than an aid toward unifying the whole design. Here the treatment of the upper portion is heavy and unpleasant which was not the case with the Transportation Building or Reinwright Building of Sullivan's.

The year 1900 finds the field of architectural accomplishments, except for a scattered few men carrying on the simplified romantic tendency, centered upon a classic revival. McKim, Mead and White are doing a great amount of work that in many instances shows an organic use of classic detail upon modern form, the beginning of a new classicism and occasionally a work of another architect using the classic revival manner shows the use of organic ornament, but even when it is organic it is a return to the past and is not a creative effort of the present. Revival architecture can not be creative, and all great styles have been built for their period. The Greeks did not say 'let us now build a Greek Temple', but they built it because it was the manner of the time. So too did the Egyptians, Medievalists and all peoples
of the past, so too must we create an architecture that will be our own. We can not say 'now let us do a Greek building, or a Gothic Church, or an Egyptian theatre', for structural mediums and necessities of utility of today will not permit it. The result must always be unpleasant and even if the result is satisfactory nothing has been gained toward a modern manner. The turn has been made to the twentieth century, a century which will bring forth more and more advantages and accomplishments of science and the machine. Sullivan, Wright, and Goodhue realize the impracticality of copying the past and it is these men who will lead toward a new manner in the early years of this century.

A new architecture understanding the past but recognizing the spirit of the present has had its beginning, first through simplification of the over-ornate copies of history, then by the striving to create a new architecture to clarify the excess of the old.

Like in America, Europe was fully aware of the necessity of a new architecture. Engineering had advanced by leaps and bounds while architecture attempted remained that of the past. The Paris Exposition of 1900 with its Eiffel Tower and other steel frame structures, in their unsatisfactory solutions, definitely demands a new architecture. Engineering of the present can not be fused with architecture of the past. It is this exposition which, perhaps more than any other group of buildings, proves this problem. Architecture and engineering must again be inseparable; then a new manner of architecture will emerge.
In Italy at this time a manner of design is witnessed which shows the same tendencies as is seen in America. The architects realized fully the needs of modern engineering and necessity. It may well be realized the unbounded respect that the architects were apt to hold for ancient monuments and traditions of architecture. They tended to pay allegiance to a certain set of ideas, while the designers of Venice, Florence, and Rome were not apt to attempt to modernize the architectural qualities of their cities. It is to Turin and Milan that one must look for a modern architecture.

At Turin the Mole Antonelliana erected in the late eighties is surely not a classic or Renaissance design. Antonelli felt the need of a new architecture to meet the demands of modern structural knowledge but even he was not able to dispense with the detail of classic Italy. The odd dome and series of stacked square and round diminutive classic temples forming the cupola resulted in an unpleasant design upon a huge square base of a classic colonnade effect. The design appears weak and structurally inadequate. The skeleton type of structure with thin retaining walls was the structural system.

In Milan, Turin, and Palermo other buildings were erected in which classic detail was placed upon modern structure. The Mole however was typical and one might see by examining it that the architecture in Italy at this time was similar to that of America. New forms were being created to satisfy new engineering principles but the manner of ornamentation remained historic. The solution likewise was
unsatisfactory but one might see by such attempts that even in the peninsular of the magnificent monuments of antiquity the search for a new architecture was inevitable.

Throughout Europe during the latter portion of the nineteenth and first years of the twentieth century the Art Nouveau period was in full swing. It was an attempt to place architecture on a basis of logic, that is to take into account all the conditions of the problem; harmony, this is to design the project in full accord with the requirements of the problem, the expense, and the surroundings; and sentiment, being the compliment of both logic and harmony and leading by emotion to its highest expression.

Unfortunately the Art Nouveau, on the most part, infringes on these principles, giving way to taste. Instead of originating new forms, the work is only the changing of detail to meet the fancies of the time. "Costliness" occurs and a feeling is gained similar to that of icing of a cake.

M. Guinard, one of the leaders of the movement attempted to make his designs expressive of the materials from which they were constructed as well as the purpose for which they were to be used and the structural principles which they embodied. Also he proposed that the new architecture should awaken the vital relationship between architecture and life which had lay asleep for many years. This latter principle he designated as sentiment. His work may be considered as typical of the period, and his principles were characteristic of all work.

The chief motive of the Art Nouveau ornament was that of continuity of line. The leaf, the flower, and the stem form the basis of the
lineal continuity so apparent in the composition of the ornament. Broken line design was not typical and was rarely used. Naturalistic figures in complicated poses with the accessories of the composition worked into a lineal design also formed a popular manner of ornamentation. Always though the design was free and flowing, naturalistic reigned over conventionalistic.

As the rule, ornament of the Art Nouveau period lacked that logic and harmony for which it was striving, and sentiment, as explained by Guinard, became merely the servant of taste, the creating of odd forms to meet the desire of the time to break from the past. What really happened was the simplification in detail and technique of the baroque, and the change of subject matter and form to a more intimate nature.

The Art Nouveau could not become a permanent style for in its essence it was temporary but the tendency was to break from the historic styles and in that respect lies its importance. It was an attempt to create a new architecture, though the element of taste ruled too completely over logic and harmony which are so essential to architecture. It proved that the creation of a new architecture was essential, but in itself failed to solve the problem.

The Art Nouveau was bound to die quickly for it had no concern with structure, materials, or use. It was entirely a surface revolution, a new form of mask. Its only law was, use curved instead of straight lines; a law which could be no more unarchitectural or further from machine age thinking.
But out of this mass of curved line surface ornament of the Viennese, German, and French architects there emerged the works of a Scot, Charles R. Mackintosh, whose works illustrated by Willow Tea House in Glasgow, have a cleanliness and directness which depends not alone on surface ornament but upon the relation of ornament and form.

On the continent Henri Van de Velde shows himself a strange combination of straight thinking, modern engineer architect with the Art Nouveau decoration, never being quite able to free himself from the fallacy of the curved line. His designs of structural form, and writings which were lessened in effectiveness by forcing a preconceived surface ornament had considerable influence upon the younger architects of Germany. They succeeded in grasping his underlying struggle for form and brought forth an architecture of form.

In Vienna, the birthplace of the Art Nouveau there stood out a man, Otto Wagner, who published a book entitled "Moderne Architektur" in 1893, and whose buildings illustrated a striving for structural simplicity and rationality along with an attempt toward a flatter decorative solution. Like Sullivan, he left few monuments, but it was their teachings that greatly influenced the new architecture and freed architectural design from the bondage of slavery to tradition.

Architects were now looking to history to seek out the principles and meanings of the architecture of the past not merely to copy detail of the past. They have realized
that to understand the past is inevitable
but to blindly copy the past is heresy.

The first twenty years of the twenti-
eth century is truly an era of awakening,
an awakening to the realization that there
were possibilities of glorious architectural
accomplishments in the creating of designs
recognizing the true functional organism
of the new engineering. Again architects
became willing to allow form to follow
function.

Such designs as the Kelley-Maus
Building, the Shoeshoffen Brewery both in
Chicago and the warehouse for Butler
Brothers in Jersey City show a definite
acceptance of the idea of allowing the or-
namental scheme to be a part of the structur-
al requirements of the building. The dis-
regard of inorganic ornament. The interest
in these buildings is gained by alternate
bands of different shades of brick, by the
use of different plain in the brick courses,
and by brick pattern work. Here is an archi-
tecture free of illogical ornament yet with
a definite step toward an aesthetic solution.

Such buildings are far more than mere boxes
satisfying pure structural and utilitarian
necessities; they are architecture, perhaps
they lack refinement but are beyond absolute
necessity, but still an economical solution
as well as direct solution to a strictly
industrial problem.

Cram Goodhue and Ferguson's designs
of the additions at West Point retain the
force and spirit of the Medieval walled
city but become modern impressions of the
past. They show the cleaning up of the
over ornamented designs of Furness and the
other followers of Richardson. Architecture is passing from elaborateness to simplicity, from falsity to sincerity.

Sullivan’s design for the Schlesinger and Mayer Building in Chicago in 1909 shows a lacelike use of ornament which is typical of his design. The upper portion where an attempt is made to gain a great amount of window space is crude and not well handled. Sullivan, in this design, centralizes ornament on the first two floors. This is a logical use of ornament but the design of it is too lacelike and weak appearing to pleasantly carry the load above. The ornament lacks architectural character and fails to acquire the solidity and power necessary of it. Functional form is carried but is confused by the intricacy of the technique.

The Milan Exhibition of 1905 clearly indicates that architects fully realized the need of a new expression of form but that they were bound by tradition to classicism. Consequent the appearance of this group is that of impure classicism. Composition becomes awkward. Dignity and force is lost in a spirit of commonness and uncertainty.

The designs of the Woolworth and West Street Buildings in New York attempt to solve the problem of the tall office building logically, but retain historic ornament. Though neither are as offensive as many of the earlier designs, there results an unavoidable confusion and conflict between form and ornament. The ornament is an inorganic addition to the structural form.
There is a striving for directness in these designs but still the ornament is forced upon the frame, the detail is not in step with the advancement of the form. The thin walled tall building will not accept thick wall ornament.

Frank Lloyd Wright, does within this period, such designs as the Larkin Office Building in Buffalo, the Unity Temple in Oak Park as well as a number of residences in which his teachings of simplicity and predominance of form are primary. Ornament is sparingly used but seems always to be at just the right points in the design. Always it is either structure or emphasizes structure and utility, always characteristic of the material, place, and use of the building.

The Franco-British Exhibition in London proves a rebound to the use of classic detail in which form is lost behind poorly composed valdlke ornament. In some of the buildings the feeling of the best is gained with more directness and evident form but the exhibition as a whole lacks that dignity and unity which marked the Chicago Exhibition of 1933.

The Municipal Office Building in New York definitely indicates that historic ornament, even when in itself it is delightful-ly composed and produced as in this case, is not a possible solution to the problem of ornamenting the tall building. Rather than unifying or clarifying the design the ornament here confuses and complicates it.

Pope in his design for the Scottish Rite Temple in Washington has grasped the qualities of simplicity, directness and
dignity of the Greeks and created a delightful composition in a modern classic manner.

In contrast is the Allegheny County Soldiers Memorial in Pittsburgh which is heavy and lacks charm and dignity. Designed on the same parti its architects, Palmer and Hornbeck, have failed to break from the classic which followed the manner of the Chicago Fair of 1893. Ornament in the Memorial is heavy and unrefined while that of the Temple is refined and direct.

Cran, Goodhue and Ferguson's design for the First Baptist Church in Pittsburgh is an example of slavery to history to the extent of a Gothic church, but is a direct simple use of the Gothic, not that over-crate illogical Gothic of the seventies and eighties. Here the architects are striving for form with ornament supplementing it.

Such designs as the Republic Building and McCormick Building indicate a desire for form but they are no more than boxes, merely engineering necessities with bits of ornament stuck here and there. There is no feeling of creating a new architecture but merely a simplification of detail. In the designs of these buildings Holabird apparently lacks the desire of a new architecture which so definitely marks his later works.

In 1915 there appears a design which shows the early tendencies of Paul Cret. Cret in association with Kelcey designed the Pan American Building in Washington. The form and ornament is that of the Beaux Arts, though somewhat simpler. Classic detail predominates the design. Cret is
later to become a rational, sensitive modernist, but here he has not yet freed himself from the Beaux Art style.

Frank Lloyd Wright’s studio home, Taliesin, at Spring Green, Wisconsin is an excellent example of his residential architecture. A low, strong appearing structure, ornamented simply and directly, it stands impressive and with romantic feeling in the hills of Wisconsin. The idea of a modern machine and pure engineering form finds no support in this design. Here is architecture, as all of Wright’s works, based upon function, having the individual feeling of the use for which it was built. This building is not a factory and is not treated as such, meeting the needs of humanity rather than the machine.

I feel that all of Wright’s designs contain reason and emotion which frees them from bondage to the styles of the past. He gains, in a new architecture, the harmony, logic, and sentiment which the contemporary architect blindly imitating the historic manner of ornamentation fail completely to do.

The early buildings of the Wisconsin Institute, planned by Crum, Goodhue and Ferguson, have a delightful feeling of the culture of the Middle Ages. Harmonious in composition, they are a most interesting, charming group. In portions, particularly the end masses of the entrance facade of the Administration Building, a strong, clean feeling of design is gained. Here is a flatly ornamented mass depending upon composition and directness, beside a loggia.
treatment typical of medieval Italy; yet there is no annoying conflict between these two forms. Throughout these designs the sentiment and romanticism of the east and west coasts of the Adriatic are felt, yet direct form and function raise this group above the realms of sentimentality to those of rationality.

The buildings for the Panama-California Exposition at San Diego done by Bertram Goodhue are a delightful group of structures. Though the detail in many instances is that of the Spanish Missions the composition of masses form the charm of the designs. Simple forms adorned by spots of rich ornament displaying an excellent sense of appropriateness give to this group much more dignity and unity as well as creative initiative than the group done at the same time for the Panama-Pacific Exposition in San Francisco, where the group of poorly composed classic buildings, enriched by color and gloss, does no more than create a scene similar, but with far less dignity and unity, than that of Columbian Exposition of 1883.

The commercial buildings, exemplified by the building for Joseph Hack Printing Company designed by Albert Kahn, the building for the Florence Manufacturing Company planned by S. M. Green, and the Reid Murdock Building in Chicago done by George C. Himes, are now created as stripped architecture. Superfluous ornament is omitted but in most cases the buildings want for organic ornament. I do not mean that these buildings are the dull box forms of the eighties and nineties which resulted when ornament was omitted, for here
is seen an attempt at an architecture based upon form and proportion. Composition is now a basic principle of the design of industrial buildings and there is a beginning of an ornamental system created by the pattern gained by the handling of the structural material; but remembering to express the internal frame in the external expression, economy is rightfully observed and there is evident the slow appearance of a logical, functional architecture replacing the great number of hideous, monotonous eras. Life demands pleasing appearance, and these new forms, though lacking in ornamental emphasis, are the early answers to this universal yearning for truth, harmony, and expression of beauty in commercial designs.

The design for the printing house of R. R. Donnelley and Sons Company in Chicago done by Howard Shaw in 1910 shows an advancement in the development of industrial buildings. Here important points such as the entrance and structural members are given place by the treatment of ornament. Form is defined and clarified by ornament. Dullness is overcome and an interesting, pleasing form displaying structure decorated by ornament is evidenced. The realization that a pleasing building will attract business has awakened our manufacturers to the desire for housing of architectural character. Our architects are answering the call.

The Chamber of Commerce Building in Pittsburgh done by Leo and Piper follows no historic style of ornamentation. The structure becomes more and more a functional design as it rises in height. The tile ornament at the top is logical; the steel frame being expressed by ornament of post and lintel form, rather than hid-
den behind a screen of arched decorative forms.

At this time Claudio Bragdon is writing articles and creating designs championing geometric forms as a basis for architectural ornament. He realizes that the art of the time is clearing the way of old aesthetic trash and that men will meet his new problems of building in some new and beautiful way. He writes that, "Ornament is nothing but the rhythmic division and subdivision of space", and that, "Projections of the Platonic solids on a plane divide that plane space rhythmically." Bragdon's ornament based upon such theory are indeed interesting and delightful decoration, being more than mere conglomeration of angles and segments of circles. They result in an organic harmonious all-over pattern treatment of that portion of a design which to him should be emphasized.

His influence upon others, however, has been rather unfortunate. Many architects have created geometric ornament which results in mere bands of abrupt angles, and unharmonious curves, a mere scratching of the surface. Such creations disorganize rather than unite the whole composition.

The design of the Bush Terminal Building executed in New York during the year of 1917 by Holme and Corbett is perhaps the most successful tall building of this time. Though

"The regular tetrahedron, hexahedron, octahedron, dodecahedron, and icosahedron.

1. Claudio Bragdon - Art and Geometry, P. 32
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the ornament is essentially Gothic in character, it appears more organic and harmonious than that of any structure before it. Mass seems to have been the chief objective in its expression, and the building stood majestically against the New York skyline of the time. The vertical is emphasized by slight surface ornament, and although the pointed arch creeps in near the top, the feeling of the steel frame is never lost, the emphasis of form being horizontal and vertical.

The temporary office buildings for the Navy and War Department in Washington, made necessary by the emergency of the Great War, demanded an architecture economical in character as well as one which could be rapidly constructed. These necessities demanded a simpler solution than the usual Classic style of Washington. The government architects solved the problem rather delightfully by designing very simple facades based on form with little ornament limited to fluting of vertical members and the spotting of the simple horizontal above with occasional well-chosen spots of simple detail. The significance of these structures was their proving that buildings of architectural character could be erected at low cost.

Hewitt and Brown's design for the Metropolitan Bank Building in Minneapolis, though not a particularly adequate solution to the tall building, shows a structural simplicity and attempt at a new manner of ornament. The lower floor seems to lack strength and emphasis at the entrances. The ornamental designs are geometric in feeling but not so pleasant and refined as the geometric ornament of
Claude Bragdon. It shows however a use of surface ornament and appears more logical and organic and not as forced as the use of historic detail on modern form.

A most interesting design of this period is that of Cass Gilbert for the United States army supply base in Brooklyn. Here is a building based entirely upon proportion and the relation of solids and voids for its effectiveness. It is a direct, functional architecture having no overlay of ornament. Light and shade produced by slight projections and insets form the decorative qualities. The possibilities of concrete construction are definitely seen in this creation. What a striking design it might have been with a little well placed appropriate ornament. Already it has an excellent feeling of strength and form, and a bit of surface ornament emphasizing important features would have made it an outstanding design. It does prove that well composed functional forms create a pleasing appearance, in fact more pleasing than if illogical ornament is added to it.

This covers the principal works before the year 1920 in America. American architects have been slow to grasp the feeling of the new architecture. Tradition has been surprisingly strong in a country with little history of its own. Why should the architecture of the past of foreign countries so effect the architecture of this youthful nation? This question I will not attempt to answer but the fact remains that except for a gradual awakening through these past twenty years on the part of a few pioneers the architects have been willing to go on superficially copying the past without understanding its form and feeling, passing up numerous opportunities to create a new, sound, logical archi-
tecture. They were gaining a sickly, insincere architecture; a variety of historically ornamented buildings lacking sincerity and expression of a new life. Glorious opportunity lay in the office and modern commercial buildings. Even in the numerous triumphant arches erected at the close of the war lay a magnificent chance to create and think in terms of a new architecture. But American designers were in a long sleep. Or were they merely willing to go on building with the detail of the past lacking all desire of knowledge and fulfillment of new structural mediums?

During this period, however, they gradually awake, even the classicists and medievalists simplified their designs. Though the ornament was superficial it seemed logical. But the real awakening was the realization, seen first by Louis Sullivan, that a new architecture, based on the return to the principles of form and function, was essential in this age of new social, economic, and structural formulas.

In Europe during these early years of the twentieth century the new architecture gathered momentum in popularity and accomplishment more swiftly and firmly than in America. Desprezelle’s composition entitled “The Reason of Progress” is a fantastic design of enormous scale dedicated to man’s power over medium. Complicated by detail at the base it becomes more direct and simple, as it rises to its summit. Though the ornament in its detail is in instances strongly influenced by historic styles the whole design in application of decoration and study of masses is a
new architecture. Though impractical, the design is extremely interesting in showing the feeling of a new age, an age of scientific desire for knowledge to rule matter.

The design of the New Theatre Champs - Elysées in Paris done by A. and G. Perret, shows no tendencies of a past manner. Form predominates with ornamental sculptured reliefs filling the voids above the entrance where windows are not wanted.

After Wagner, Joseph Olbrich came to the fore as the champion of the new manner. The Nietsch Department store in Busseldorf and the German Pavilion at the St. Louis Exposition are examples of his clean cut, simple, direct, new architecture. No ornament which does not lead to expression of simplicity and composition is allowed in the design. The ornament is organic and harmonious with a new form. Form at all times is evident, with the ornament used to emphasize certain portions of the composition or structural forms, but always unity of the whole composition is observed.

The project for a Library in Vienna and a Church in the Steinhof illustrate the functional architecture of Otto Wagner. Ornament was used in these designs complimentary to structure. A flat ornament was used resulting in a cleanliness and directness of form characteristic of the scientific mind of the age.

The new Court Theater in Weimar, designed by Neumann and Littmann; the Schauspielhaus in Stuttgart, planned by Rital and Steigleder; and a Dresden Schauspielhaus designed by Lessow and Kuhme all show the functional character of the new German architecture, scientific in its
essence, with ornament used to add interest to necessary form. Irrelevant detail is omitted from the designs. Directness of form is the foremost objective and the limited amount of ornament aids in the realization of this functional architecture.

Professor Peter Behren's interesting design for a turbine factory in Berlin, and one for a lace curtain bleachery by Professor Lessev and Max Kuhne, and the factory of Henry Hope in Birmingham, England illustrate the simple, truthful designs of architectural merit being created for factories in Europe. They are not "Notre Dames" or "Pantheon", which would not have solved the problem. Factories are not to be richly ornamented, they are not to be admired for intricate detail, but the factory should be as carefully designed as the theatre, the church, or the office building. These designs are carefully designed with due consideration of form and color. Little or no ornament is used but a decorative effect is gained by the handling of material and form. These are sincere expressions of factory architecture.

Joseph Hoffmann's works, illustrated by the Austrian Pavilion at the Werkbund Exposition in Cologne in 1914 and the Secession Mansion in Brussels, show a scientific knowledge of structure. Function is always apparent. Ornament adds interest to, as well as aids in defining, form. His designs are admirably simple and alluringly enriched with pattern and color, but in this pattern the goal is that of unity of the whole composition, no one pattern is to detract from the entire design but rather lead to one large unified whole.
Ornament and structure as one in the end these men of Austria and Germany hoped to gain. Fundamentals of form and function must be observed and ornament but be in sympathy with design.

Max Klinger, Franz Hoffmann, Bruno Taut, Karl Witzmann, Oskar Strnad, Jan Kotera, Joseph Frank, and Joseph Urban, who later upon his arrival in America revolutionised stage setting design were architects of this European modernism. Simplicity, directness, organism, logic, and harmony were the points for which these men strove. They demanded the elimination of the ornate, and replaced it with concentratedly rich bits against well proportioned whites. The charm lies in their ability at perfect adjustment, exact proportioning, understanding of colors, in contrasts and harmonies. They hoped to solve the problems which new forms brought about and hoped to do so by returning to fundamentals rather than superficial ornament.

The Great War abruptly retarded the advancement of the new architecture but during these first twenty years of the current century one can see that the architects of Europe have met the problems of the new requirements of utility and structure more honestly and frankly than the Americans. A few architects in America, particularly Sullivan, Wright, and Goodhue, created works to compare favorably with those of the Europeans, and it is in Europe that the teachings of Sullivan and Wright found their most eager and willing disciples. Sullivan’s and Wright’s teachings were of considerable influence upon these scientific men of German blood, who are always willing to grasp a new idea and carry it quickly forward.
Throughout Europe great strides had been taken in the development of the "modern". Ornament for them was a method of explaining form and function and to add to the appearance of the structure, for such a system of ornament tended to place it where it was logical and expressive. No added material was used for ornamental purposes but the ornament became a part of the structure.

These foreign architects were not called upon to design skyscrapers as the Americans knew them, but we wonder what they might have done had they been given the chance.

When a German designed his ten story building, which to him was a skyscraper, the whole was idealized and carefully solved, ornament was flat and fit into the thin shell.

Sheldon Cheney causes us to envy as well as realize the willingness to study and solve their problems of our fellow architects across the sea when he writes this short sentence: "And oh! don't the Germans sigh for the opportunities that American architects have wasted!"1 Such a sentence sums up the first twenty years of the twentieth century. America has awakened, yes, but slowly, while the Europeans were quick to grasp the new idea.

With the close of the war, the economic influence on architectural design became extremely important. Germany, England, France, Austria, and Italy were unable to spend a great deal upon building, while in America and Holland materials were most expensive, and though these countries were in far better financial condition, this factor demanded

simplicity of design. Also through the period of war great strides had been made in scientific knowledge. Old buildings and the old manner no longer found favor with the people. The desire to forget the past, to look to a new life after four years of terror, was the prevailing spirit of the time.

Sullivan, Wright, Wagner, Olbrich, Peter Behren, and Joseph Hoffmann had taught the world the necessities and principles of a new manner before the war. Now with new life, vigor, and freedom from tradition architects sought expression and solution of their problems in this new architecture.

In 1920 Bertram Goodhue broke from the usual conception of a state capital of Classic precedent and won the competition for the Nebraska Capitol Building with a design in the manner of the new architecture, having dignity, force and individualism characteristic of the twentieth century. The mass is extremely impressive with the delightfully proportioned tower rising majestically from the center of an adequately powerful, diligently studied, square lower mass. The vertical of the tower and strong horizontal of the lower portion is most harmonious and charming. Goodhue doubtless realized and understood fully the logic and perception of the relief sculpture of the Assyrians, Greeks, and Romans as well as the sincerity and emotion of the verticals of the Gothic.

The horizontals are ornamented with a new ornament involving the clarity and sound reasoning of the Assyrians, Greeks, and Romans. The detail shows the understanding of the conventional and simplicity of the Assyrians combined with the composition and pictorial nature.
of the Greeks and Romans. The reliefs were a part of the wall surface and composed so as to combine the elements of the building into a single unit, yet giving emphasis to the central portion. The tower ornament defines the structure and emphasizes height, not by copying Gothic detail, but by the use of logical ornament used as a part of the form. The sincerity and feeling of the Gothic is evident but the character is modern. Here is a harmoniously ornamented composition involving vertical and horizontal masses. Harmony and unity is obtained through the creation of an ornament which is logically sound and appropriate to form and function, by the understanding of the past, without being enslaved by its technique. This ornament recognizes the form and in such a realization and careful solving of the entire problem upon the basis of harmony and organization, a unity, completeness and appropriateness results.

The Chicago Tribune Tower competition, held in 1923, discloses an interesting and distressing fact. Of the numerous designs presented few architects were willing to design anything more than a collection of historic detail cast upon a tall skeleton. Acceptance of the past and literal form is seldom evident. The design of Hiel, Scandinavian, gives a more logical and straightforward solution than any of the other designs and it is indeed distressing that a European, who had little experience with the skyscraper problem should solve the problem more completely and directly than any of the Americans. The selection of the
design of Howells and Hood by the jury; in my opinion, was an exhibition of national patriotism and sentiment. The ornament of Saarinen’s design was logical and organic, and the mass as a whole was the first adequate solution of the tall building. Though the design was placed second in this competition, it unquestionably influenced the office buildings to follow. It is the first skyscraper design portraying a creative, fundamentally sound effort at the solution of a modern problem with a modern architecture.

The winning design of Howells and Hood is one of sentimental and illogical decoration. The buttresses, tracery and screens of the upper levels are most inorganic, having no structural value, and are placed at a position where their craftsmanship and forms are entirely wasted in so far as being viewed from the street level. The tower is not supported by the buttresses but its load is carried by the central columns of the plan. The architects were willing to let a preconceived fancy of historic form rule in the designing of this structure, rather than arriving at a logical, functional solution of the problem. Sentiment and the illogical, in this design, are triumphant over reason and the organic.

The Imperial Hotel, in Tokyo, Japan, planned by Frank Lloyd Wright, shows the remembrance of the past by the architect, but only to the extent of feeling, not of old ideas being forced upon new form. New structural forms are recognized with ornament fitting to these forms being created. The ornament at all times is organic, being
used to beautify modern engineering, and
though rich, gay, and often becoming elabo-
rate, it never fails to take into account
the structural form which it decorates.

Holland, as a result of remaining
neutral through the war, had greatly in-
creased her wealth by selling supplies
to contesting nations. A vast building
program was initiated, but economy was a
distinct element in the designs because
of the value of materials. A keen sense
of proportion, relation of masses, and
careful fenestration were the principle
characteristics of the designs. Decoration
was limited to patternwork of brick, rich
coloring of opening frames and a small
amount of carved stone. Logic and harmony
give to these nude designs, such as Dudok's
schools in Hilversum; and the numerous de-
signs of Blom, Van Meeklen, Kramer, Loren,
Wils, Rutgers, and Crowell, a sincere
truthfulness and directness, delightful in
their simplicity and composition. These
Hollander seemed to grasp the teachings
of the Americam Wright, and many of their
buildings show his influence.

Ornament was recognized as a supple-
ment and complement to form, being used to
accentuate and unite rather than to dis-
integrate the composition. Ornament always
was designed with the architect full aware
of the engineering form and character of
the facing and ornamental material. Or-
nament was a part of the form, there was
a functional architecture; architecture
mind, for it was more than absolute
structural necessities, it was necessary
elements composed and simply ornamented to form a pleasant design.

The architects of Holland grasped the form of Wright but failed to achieve his decorative results. These buildings want for sufficient clothing. Dodck's designs of schools, the City Hall, and Bath-house in Hilversum charming in their directness doubtless would have been far superior had ornament been sensitively used.

The Olympic Stadium in Amsterdam designed by Jan Nils is a logical expression of a stadium built in the past and latest manner. The arch ornament so commonly forced upon such structures by tradition is abandoned and a simple, organic design is created.

The designs of P. L. Kramer, of which "De Bijenkorf" store in Den Haag is typical, stress proportion, little ornament being used. The result is pleasing because of sensitiveness of composition but a lack of ornament is sensed.

The Van Nell Factory in Rotterdam designed by J. A. Brinkman and L. C. Van der Vliet is a building of function. No use of ornament is evident and though the vast plains of glass are novel the design lacks refinement.

Baxel's design of the office building of the Netherlands Trading Company in Amsterdam has logical ornament. An all over brick pattern with panels between floors presents an ornamental treatment more extensive than the usual Dutch work.

Reynolds's drawings for Government Buildings present a delightful use of organic ornament. Plain wall surfaces are carefully
proportioned and enhanced by well placed ornament. The ornament clarifies and defines the form and plains of the composition.

As the rule the architects of Holland failed to define because of a lack of ornament. Structure and function are predominant and pleasing but refinement and dignity are lost. They lacked the sensitive use of carefully studied ornament which so enhances the works of Peter Behrens in Germany; Frank Lloyd Wright, Bertram Goodhue, and Paul Cret in America; or Eliel Saarinen in Finland.

The English have done little in the way of a creative modern manner. The few pleasing designs done in England in the manner of the new architecture are so greatly influenced by the German or American that they can scarcely be designated as English.

During the year 1923 Crosswall’s design for a Boiler Works in Queensbury, Flint, England, is seen as a solid, simple design with a slight use of ornament at the entrances and the top. Form is ornamented by organic detail.

The following year the British Empire Exhibition at Wembley brings forward ornament in simple moulds appropriate to concrete construction. These buildings lack explanatory ornament and are dull in their plainness but are important in that they show the willingness to study and create a logical architecture.

The design of the Adelaide House in London done by Sir John Burnet is one of function. The verticals and horizontals of the frame are definitely expressed in the exterior form. The use of ornament is logical and harmonious,
not being tacked on to the material and form but being a part of it. The beauty and romance of the Adelaide House is found in its balanced synthesis of form, purpose, material, and simple ornament.

Elizabeth Scott's Shakespeare Memorial Theatre in Stratford England is a delightful study of brick architecture. The masses are very pleasant though the ornament of the main facade is a bit awkward. The sculptured brick figures above the windows of the facade bays appear illogical and forced while the division of the central portion of the facade into five bays and the fenestration of these bays leaves a great deal to be desired. The end and side masses are simpler and more pleasant with their ornamentation gained by the handling of brick courses to form a decorative pattern.

In the North Country, Sweden, Finland, and Denmark, architects are creating structures of delightful, well composed masses, using ornament sensitively and appropriately to aid in the expression of their forms and composition. The ornament is logical and harmonious with the building materials and utility. Such designs are the City Hall and Concert Hall of Stockholm.

Stockholm's City Hall designed by Ragnar Ostberg shows the influence of history only as a source of inspiration. The Doge's Palace in Venice doubtless was the model of this design but the execution of the inspiration is modern. The composition is impressive in its simplicity, and unity. Ornament is used only to aid in the expression of form and give relief to the vast wall surface. That
ornament which is used in organic and carefully thought of in relation to form. Openings are emphasized by sensitive ornament while the handling of brick adds interest, to the walls as well as aiding in the unifying of the whole design.

By this time there has developed in Finland a new architecture based upon logic and truth, employing ornament which is relative to, and organic to structure. This advancement may well be realized by comparing Saarinen's design for the Railroad Station in Helsinki, done during the war, with that of the Parliament House, also in Helsinki, done in 1899 by J. S. Siren. The former is novel, having vigorous forms, beautiful color and material, but the mingling of unusual masses with newer forms merge none too well. As might well be expected of initial efforts of a new manner unity and logic are lost in this design. A desire for an extreme break from the past results in a feeling of oddity, and an illogical and crude relation of forms and detail. The latter design, the stunts of the Railroad Station have given away to a balance and refinement of composition and ornament which expresses the formal manner suggested by the subject; yet the design and detail fully meets the demands of the new architecture. Charm and dignity are gained by the organic clothing of the structural frame. Simple, direct ornament defines and beautifies the pleasing study of mass and proportion. Harmony, logic, and truthful simplicity are again recognized by the Finnish architects as the fundamentals of architectural beauty.

Also there are designs based solely upon utility, such as the Water Works at Lovo and
the Public Bath at Eskilstuna, where function and form are the ruling forces. These designs are stripped of all ornament merely the structural elements and openings forming the composition. As in France these designs are lacking in refinement because of the absence of an intelligent use of logical ornament.

In Finland a new architectural beauty is being accomplished by the determination of the architects to meet new conditions sanely, accepting scientific advancement, and planning logically to avoid confusion. Beauty is gained by the harmonious and pleasing handling of scientific form, ornament being organic to, and expressive of form.

Italy has produced but little worthy of mention in the character of the new architecture. The one outstanding contribution to modernism is the Stadium of Florence designed by Dr. Servio which is a delightful functional composition, having no trace of ornament.

The majority of the Italian modern designs either fail aesthetically as expressions of form and function based upon mathematics and logic, such as the Fiat factory at Turin, or as compositions of beauty gained by the use of ornament, such as the station at Milan where the influence of classic Italy is introduced with distinct failure into the new manner of architecture.

In France the new architecture is being created upon the principles of mathematics and logic. Le Corbusier and his followers, among whom is Le Corbusier, contend that architecture is not intended solely to please the eye,
but especially to be of service, and it should only draw inspiration from life. Beauty will then come to it naturally. But Le Corbusier's opinion of modern life and modern men is that the machine is the one characteristic element. His designs are characteristic of a machine-like formula. To him nothing that is unnecessary in the construction exists and solely because of that, the shape is free from all artifice and is beautiful. Thus results unintentional beauty, truly machine-like, all strength and simplicity. His designs are based purely upon form and function. Ornament is felt by him to be one of the unnecessary attributes and is omitted. His designs are but cubes arranged in a systematic order with angles replacing curves and openings occurring only as dictated by utility. He arrives at a composition of form, relation of masses, and fenestration which is indeed straightforward and crisp but the designs are lacking of the texture, beauty, and refinement that a sensitive logical use of well ordered decoration adds to rightly composed forms.

Such is the result of the realization of the impracticality and lack of a true solution evidenced in the designs of the 'Art Nouveau'. Le Corbusier recognized the absurdity of the icing ornament of that architecture and stripped his form of all ornament seeking a direct and truthful architectural expression of the new life and engineering of the twentieth century.

Such men as Mallet-Stevens, create their structures with strict observance of the mechanical elements but introduces a geometric
manner of ornament in the glass and grilles of his designs. In Ballast-Stevens designs of the imagined 'Cité Moderne', a fantastic, toy-like quality is gained which is impossible in this world of today. His actual buildings show a study of form with interesting geometric patterns of colored glass well placed in the composition but still the masses appear naked and harsh.

The abundant ornament of A. and C. Perret is as unrefined and harsh as the lack of ornament of Le Corbusier, if not more so. Instead of clarifying and softening structural form this ornament of mechanical geometric patterns complicates and hardens the composition.

In 1924, A. and C. Perret designed the Church of Notre Dame at La Seine, France, in which is seen the use of exaggerated geometric pattern grilles in rectangular windows. The design is cold, harsh, and unpleasant in its attempt to emphasize structure. Rather than clarifying and beautifying form the sharp angles and abruptness of the ornament complicates and detracts from the unity of the composition. It is a new architecture but a solution of the problem is far from being reached. In an attempt to express the scientific structural forms, sincerity and a feeling of adequate form is lost. Science is answered but architecture is lacking. The dignity and emotional qualities which one expects in a church are not present; tricks and the unique replace logic and harmony.

The International Exposition of Modern Industrial and Decorative Art held in Paris in 1925 has been considered by some critics as the birth of modern architecture. This I feel to be an over-estimation of the group for in both
American and Europe a study of a new architecture had been in progress for over twenty years. The importance that I see in this group is that it presents what might be considered the foremost achievements up to this time. Ornament is used in this group in a logical manner though at times it lacks harmony because of its own composition. The nature of an exposition demands ornamentation and here the architects went out of their way to decorate. The use of ornament on the buildings of this group is extremely well developed, but in its character often overbalances form.

In the case of the Porte d'Honneur the fluting of the piers is pleasing and well related to form but the carving of the lintels over the entrances appears heavy for the place. Ornament is desired at such points of a design but here the composition of the ornament detracts from its effectiveness.

The Pavillon du Collectionneur is delightful in its directness and simplicity of form while the frieze is both well related to the whole composition and well executed, creating a distinct feeling of harmony and completeness.

The atrium of the Polish pavilion is a story of form and function with a delightful doorway marked by the use of illogical detail rising above the wall. The Holland, Austrian, Swedish, and British Pavilions are simple and ornamented in a harmonious manner. Form is aided by the use of logical detail. The Belgian Pavilion is confused, with clarity lost in a mass of unorganized detail. The form is there if observed closely but rather than explaining the structure the ornament complicates it.

The Theatre is a pleasing composition based upon function with detail limited to a geometric
patterned frieze and slight moldings about well proportioned doors. The use of four attached columns on each side, presumably to soften the corner, detracts from the simplicity and charm of the creation but the ornament does not cause the form and function of the design to become obscure.

The Sevres pavilion with its monumental urns, a bit out of scale, and the pavilions of the Galeries Lafayette and the Magazines du Louvre have ornament which is at times very logical and pleasing as seen in the inverted fluting of the pillars of the Galeries Lafayette and the series of set backs and decorated lintel of the windows of the pavilion of the Magazines du Louvre. In these same designs, however, is used inorganic ornament, such as that of the central bay of the Galeries, which detracts from the unity and charm of the composition. This is brought about by an inability to solve a problem which the architect fully realizes. They realized the need of ornament but were unable to reach an adequate solution, rather they tended to over ornament the portion they felt to need relief from barrenness.

When viewed critically as a whole it seems that Franklina Paris was a bit severe in his criticism that this exposition brought to mind the old Arab proverb, "The dogs bark but the caravan goes on." This group of buildings was a profitable experimental grounds. Much was learned here for ornament was placed on the forms of the "Modern architecture" of form and


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function. Many mistakes were made but the
reasoning and study on the whole was an ad-
vance in the search for new expression of
new engineering. It is true that the cara-
ven moved on but what Mr. Paris terms as
barking dogs, to me, was rather the slow pled-
ding of faithful pack beasts.
It takes some stretch of the imagination
to class the facade of the Theatre des Muses
Pleisirs in Paris as architecture. The orna-
ment here seems to have been created purely
to be odd and attract attention. No sense
of reason, logic, or harmony is apparent. It
is simply a novelty and a very unpleasant one.
The same sense of novelty is characteristic
of the Theatre Folies Bergere where a large
poorly composed sculptured panel covers the
major portion of the facade above the en-
trances. Unity and harmony are completely
lost in an unpleasant form created to attract
attention.
The Paris Colonial Exposition might be
classified as a trick. Exclusive of bits of
medium relief sculpture of all-over pattern,
such as the jungle life carved on the facade
of the Hall of Art placed in the part shadow
of slender colonnades, the design of the fa-
cades might simply be called modernism rampant.
This all-over detail devised as a single
composition over the entire facade with the
openings merely punched through presented a
charming decorative relief to a plain wall.
The play of light brought about by the reveals
of the forms and the variation of light caused
by the shade of the colonnade was most inter-
esting and delightful. Otherwise the ornament
of the buildings was unpleasant and illogical.
Disks, forms of odd shapes, and geometric pat-
tterns were case upon plain surfaces unpleasant
forms and masses emphasizing their unpleasantness. The architects were satisfied to be odd and different rather than to create a harmonious, logical, well studied composition of pleasingly ornamented forms.

Thus is seen in the French school an unsatisfactory solution of the modern problems attempted along the lines of geometry and logic, neglecting those of harmony. Exclusive of portions of the Exhibitions of 1925 and 1931 in Paris the French lack a reasonable ornamental solution of logic and harmony. A great lack of organic, sensitively composed, and executed ornament is evident and becomes in many cases extremely unpleasant. The French prove definitely that architecture depends upon more than mathematics, logic, or oddity for satisfactory solutions to the problems of design.

The leaders of the new movement in Germany and Austria, Joseph Hoffmann, Professor Peter Behrens, Eric Mendelsohn, Wilhelm Kreis, Clemens Holzmeister, Adolf Abel and Paul Bonatz, have a distinct functional character in all their ornament. Decoration is created in the form. Simple pattern work in the facing brick, simple moldings or a frame well composed about careful fenestration, and an excellent sense of proportion are combined to form a delightful design fitting to the functional conditions, both in use and structural requirements of the present.

Adolf Abel's group for the Cologne Press Exhibition shows a delightful sense of form ornamented by brick patternwork. Ornament is used not to show off technique or tricks but rather to tie the whole group into a unit and to give
texture and relief to the form. All of the ornament is a part of the form, not added material. The organic and form of the structure is enhanced by the use of logical ornament.

Wilhelm Krois' buildings for the Dusseldorf Exhibition buildings again illustrate the harmony and clarity obtained by appropriateness, adherence to logical ornament created as a part of the form. The Planetarium is exquisite in its frank expression of function and ornamented by no more than brick patternwork upon the structural material. The introduction of stone into the other buildings is possessing of the same logic and function that of detail being used to aid proportion, so satisfying in this organic new architecture of the Germans.

The Railroad Building at Stuttgart and an office building in Dusseldorf designed by Paul Lenz is and an office building in Cologne planned by Jacob Kocher illustrate the sincere appreciation of and striving to accentuate or leave importance to, form and composition. Seldom do we see ornament which is not incorporated in the actual walls of the structure. Irrelevant ornament is not permitted in the designs.

The works of Joseph Hoffmann, such as Villa Knips, Villa Skywa, in Vienna, and a design for a concert auditorium, show a sensitive expression of forms. Well proportioned openings, carefully studied for their relation to wall surface, are bordered by simple moldings or a decorative band. The wall surface of the Villa Skywa is given interest by the use of wide pilasters delicately fluted with a simple ornamented cornice across the top. Exhibition of form, and broad wall spaces pierced by exquisitely proportioned openings was essential to Hoffmann and his use
of ornament at all times tends toward aiding toward this objective.

Hoffmann appreciates and studies his designs in relation to their destined human use, in relation to the material of which it was to be constructed, in relation to its aesthetic expression. He gives to each building a logical, harmonious form, adopted to the conditions of present life. One might well sum up Hoffman's aesthetic principles in the ideas of proportion and rhythm and his ornament variably aids in the expression of these ideas.

The designs of Erich Mendelsohn, illustrated by a hat factory in Luekenrade, a business house in Breslau, and the Radio Pavilion at the Cologne Press Exhibition, have a functional character that becomes severe in its plainness. His buildings have a delightful composition of parts and masses but appear lacking in effectiveness because of a lack of ornament. A sensitive use of organic ornament similar to that of Hoffman's would have given this form a more pleasing and interesting exterior expression.

The architecture of Professor Peter Behrens is excellent in its sense of proportion and use of ornament. At all times the ornament is organic and sensitively studied for its form and quantity. The ornament is flat, surface ornament composed of pattern of materials, simple moldings, or excellently placed relief sculpture. No feeling of applied ornament is sensed, rather the form itself becomes ornament, mass, proportion and openings are enhanced by decoration which is harmonious and logical. This is evident in such works as the office building for the Hoffmann-Fehrenwerke in Bueseldorf, where structural form is beauti-
fully clothed by simple convincing detail. The entrance is simple and well composed having slight emphasis over the rest of the composition yet held in unity with the entire design. The same character is evident in the office building of the Continental Caoutchouc and Gutta-percha Company in Hanover and the Rocheder Farbwerke, Rocheder-on-the-main. The same simple, functional pleasantness is also a fundamental principal in his church designs such as the Pfarrkirche Esch-Kellinghausen, and a design for the Synagoge in Zilina. These latter three examples also show his extensive use of color for decorative purposes. Throughout the works of Bohrens form is the predominant characteristic, but not nude form, always the skeleton is clothed in an exterior expression logical, harmonious, and pleasing.

The Church of St. Antonius at Augsburg, Bavaria, planned by Michel Kurs, is a simply composed form. An odd porch insufficiently attached to the facade weakens the directness of the design.

Four sculptured figures resting on brackets well placed on the nicely proportioned and well, and the brick treatment dividing this surface into four vertical spaces into which these figures are placed, as well as the brick treatment of the tower give interesting outer form to what might have been a dull facade.

The side walls are delightfully handled with a repetition of bays with brick moulds and verticals accentuating and framing the openings and individual bays.

The Planetarium designed for Nuremberg, Germany in 1923 by Otto Schweizer is ornamented solely by the brick pattern. Mass is the
predominant feature with relief being given to the surface by the pattern work.

Hans Poelzig tells us that "The iron and concrete structures are the skeletons, and nothing but the skeletons, of the buildings, the warmth of the flesh and the outer and inner skins must be furnished by some other material, and the stylistic foundation of the latter - next to the rhythm of the skeleton - of course determine the character of the exterior architecture!" This character is evidenced in his designs such as the Exhibition Building at Exhaw and the design for the Festspielhaus at Salzburg. In these the frame is covered by a simply ornamented clock recognizing form, function, and logic.

The German's solve the modern architectural problem with more humanity than the French. In their designs of public and commercial buildings they were not satisfied with mere mathematics and utility, but introduced a sensitive manner of ornamentation, ornament that was a part of the structural material, but by pattern or bordering moulds added grace, beauty, and charm to the dull forms of pure mathematics.

The architects of America, at this time, were becoming more and more aware of the reality that the solution to the ornamental problems of the tall building lay in a new manner completely freed from historic precedent. The Pacific Telephone and Telegraph Building in San Francisco, designed by Miller, Pflueger, and Cantin and the Building at Number 26 West Fortieth Street in New York, planned by Buchmann and Kahn illustrate this movement. Frank expression of form ornamented by logical

1. On Hans Poelzig by Hans Poelzig, American Architecture p.255 v.123
detail is seen replacing tacked on historic detail. These designs by no means are a solution to the problem but they do show the direction in which designers are moving. At points these designs show a delightful straight-forwardness and organism but the architect is not yet able to break completely from tradition, arched ornament and applied ornament creeping into portions of the design. The movement is, however, progressing toward a new expression of the steel frame building, following the teachings of Sullivan.

Goadhue's building for the National Academy of Science and National Research Council in Washington is delightfully ornamented. The entrance, simple and easily determined in the design, is unified and a part of the whole composition. The vertical slits running the full height of the building are beautifully proportioned while the sculptured panels between the floors do their duty in tying the whole form together perfectly. The entablature and horizontal band of ornament across the top tie the building together after the window slits have given a vertical feeling. The ornament is organic, except for the entrance and that is certainly logical and harmonious. The whole is sensitively studied for composition and relations of forms. Goadhue understands the use of relief sculpture as true ornament, and uses it extensively to aid in beautifying his expressions of form and structure. The underlying structural necessities are clear, in this design, behind a logical, harmoniously decorated flesh.

At this time (1935-36) many buildings,
the type of, Building Number 350 Seventh Avenue, New York, designed by Buchmann and Kahn, the new General Motors Building in New York, planned by Shreve and Lamb, and Albert Kahn's Building for the Hudson Motor Company in Detroit, are being raised which are distinctly new in feeling but lack refinement and solution of ornament. They take the appearance of a square telescpoe, one section growing out of the next lacking unity and coordination. The set back problem is not yet solved, or organic ornament which will tie these sections together is not yet clearly understood. The forms and ornament are a break from the past, but are archaic and lack a sense of beauty and completeness. The flat, miscellaneous geometric patterns used as ornament do not solve the problem. The realization for a new solution is present, but any reasonable answer is lacking. They merely are experimental works, and in that fact lie their aesthetic importance.

The studies done by McKimie, Voorhies and Coitlin for the Barclay-Vesey Telephone Building in New York present a story of the struggle to create a building in a new manner of architecture. The early studies show strong tendencies toward the use of historic detail disguising the form, but in the progress of study and clarifying the form, the structure becomes more logically composed and ornament more successfully employed than any previous design involving the set back law. Ornament is used to explain different levels and surfaces, taking into account the structural system. Logic and harmony becomes evident, and ornament becomes more than mere copying.
of history or scratching of the surface.
This design is more expressive and unified
than a mere stack of boxes. This advance
in expressive composition is brought about
largely by the use of organic ornament which
ties together the several sections into a
single unified design.

The buildings for the Michigan Ford
Motor Company in Dearborn, have a functional
quality characteristic and expected of a
manufacturing establishment. The architect,
Albert Kahn, uses ornament in this design to
add interest to structure. The fluting of
the structural pilasters of the one story
portion, the plain pilasters with simple caps
of the two story portion, the medallions on
the panels between the floors, and the series
of names inscribed on the simple frieze consti-
tute the decorative scheme. Carefully studied
proportion of the structural elements, slight-
ly but carefully ornamented, form a rhythmic
composition of logic.

The competition for the Kansas City
Liberty Memorial in 1927 produced two excel-
 lent designs in the new manner. The winning
design of H. Van Buren Magonigle has a simple
central shaft with a memorial building on
each side. The emphasis is placed upon form
and proportion with ornament used to articu-
late and beautify the form. The well com-
piled friezes of the retaining walls give
life and interest to what would have been a
dull form. The design of Bertram Goodhue's
has that sense of appropriate relief sculp-
ture seen before on the Nebraska Capitol and
the National Academy of Science. In each de-
sign the dignity and quiet is felt, that re-
sults in a design of balance between spirit
and form. In these compositions structure and ornament are in coordination rather than in opposition.

The buildings for the New York Telephone Company in Syracuse and Newark designed by Voorhees, Goshin, and Walker have the same characteristics as the building for the Barclay-Vesey Telephone building mentioned before. The ornament is appropriate to frame building design. The whole is unified and the ornament decorates the portion between the vertical members on the horizontals between floors, and the terminal of the verticals. The lower portion has an all-over pattern of floral designs and fluting stressing the vertical. This all-over pattern does not disguise the form, rather it aids in clarifying it by giving emphasis to the alternate shafts which are the actual load bearing columns. The intermediate shafts are structurally false, but this falsity is somewhat overcome by this decorative treatment which emphasizes the structural verticals. This all-over pattern at the base, with the building simplifying as it ascends, is an interesting experiment in the placing of ornament where it is logically expected, that is where it can be seen.

The facade of the Ziegfeld Theatre in New York done by Urban and Lamb has the feeling of the Austrian movement. The ornament of the central portion stands apart from the form and resembles "Art Nouveau" ornament of Vienna. It is a new architecture but lacks dignity and unity.

The City Building for Asheville, North Carolina has miserable composition, fenestration, and detail. The architect, D. D. Ellington, seems to have set out to do a modern pro-

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ject, being intent on gaining a new feel-
ing, and in his desire he lost the essential
guide of form and function. He seems to
have had bits of modern form and detail in
mind and used these forcing his problem to
do so. The result is out of scale, poorly
massed, and the detail confuses and accen-
tuates the poor proportions of the whole
project.

The designs for the Cranbrook School and
the Kingswood School at Bloomfield Hills,
Michigan, done by Saarinen, are modern crea-
tions. The former has a tinge of medieval
tradition. Both have simple, functional orna-
ment that aids in the expression of form. The
ornament is logical and harmonious to modern
usage and structure.

The Los Angeles Public Library, of which
Bertram Goodhue is the architect, is a study
of plain wall surface with sensitive relations
between solids and voids. The sculptural orna-
ment done by Lee Lawrie is limited to the em-
phasizing of the entrances and the termina-
tion of the buttresses. The central tower is ter-
minal by a pyramidal form ornamented with
a colored geometric pattern mosaic. The study
of masses and proportion in this composition
is very pleasing but Goodhue's usual exacting
sense of ornament seems somewhat lacking.

The designs of the Park Avenue Building
and the Panhellenic Tower in New York; the
building of the Pennsylvania Power and Light
Company in Allentown; the Fidelity Mutual Life
Insurance Company Building in Philadelphia; and
the Woman's Building in Chicago are examples
of the gradual advancement in the composi-
tion and ornamentation of the tall building of steel
frame and thin retaining walls. The idea of
copying ornamental bits created under the engineering, economic, social, and spiritual conditions of a past age is abandoned. Ornament and form is now being carefully and thoughtfully studied with respect to modern materials and usage. No longer is a building, constructed for commercial use, being ornamented with detail from a classic temple or medieval cathedral. Instead the architects are striving to create ornament of a new manner, understanding and intently seeking knowledge from the formulas of past, but careful not to blindly copy them. These buildings give no complete answer to the ornamental problem, rather they individually solve certain aspects of decoration. The architects, John Reed Novelli, Holabird and Root, Buchanan and Kahn, and Helnie and Corbett, are not able to conceive a complete composition in the new manner. These designs are transition designs. Precedent invariably influences the architect at some point or other too greatly for him to create a completely functional solution. But it is important to note that where inorganic ornament is used it takes a more logical and harmonious position in the design than in the case of such buildings as the West Street Building or the Singer Building built in New York during the first ten years of this century.

As in Europe, color is now being used to a larger extent than before to decorate a building. Form is being defined by color. Pattern ornament is being colored. The use of brick and tile as a facing material invited the use of color and the architects realizing its possibilities began to experiment with it as a decorative element. In the design of
the Park Avenue Building, Buchman and Kahn use colored geometric ornament as well as gradually introducing a lighter shade of brick as the building rises in height. The effect is quite pleasing. Care must be taken that the shades of the colors are kept harmonious and pull the design together and not make it a form of numerous colored spots. This use of harmonious colors presents a manner of ornamentation that has vitality and is of considerable assistance in gaining unity in the composition.

Sloan and Robertson in 1929 designed the Chanin Building in New York which is a splendid contribution to the twentieth century architecture. The problem of a tall building of a steel frame is approached with care and reason. At the street level there is an all-over pattern of ornament. The detail in itself leaves much to be desired but the idea of an all-over pattern, surface ornament at the lower levels is a most interesting development. The bronze frieze and detail of the shop fronts is a delightful bit of design but in it is seen the weakest aspect of the design, for the show windows and black columns below this separating frieze cause the allusion that the building has no base, that it begins with the second floor. This is a common fault with tall building design brought about by the want of maximum show window space. As the structure gains height the forms become more simple. Detail is used not for itself but to give interest to form. It is the detail in scale and relation to form and height that becomes predominant. The top of the composition is neither abruptly blunt or weakly tapered off. The composition is one of unity and logic in which
organic ornament except for the show windows is used to attempt a rational solution to an inadequately solved problem.

The following year Paul Cret in association with Smith and Bassette presents a design based upon logic, harmony, and usage. This building is the County Building at Hartford. The feeling and refinement of classicism is here, but the design is not a blind copy, rather a new architecture recognizing modern engineering and spirit. A sensitive and refined study of proportion logically ornamented marks this design as one of the foremost in American design. Ornament seems always to be just at the right place and exactly adequate to the simplicity and aesthetic harmony of the whole. The detail ties together the composition delightfully emphasizing the important elements and giving interest and beauty to what might, with less study and care, have been extremely dull surfaces. The ornament in itself is simple in design, while its use is organic and logical, being a truthful, beautiful outer expression of the interior form.

A design harmonizing the building with the terrain and bringing out the natural inherent qualities of the material used in its construction is the feature of A. C. Neilson's Arizona-Biltmore Hotel at Phoenix. An ornament of all-over pattern gives richness to the walls while the points of most importance are given emphasis without destroying the unity and coherence of the composition. The ornament is functional in that it is purely the enrichment of form. The study of masses with ornament enriching and defining these masses is the trait of this design; the ornament is an integral part of the structure.
The Rok Singing Tower at Mountain Lake, Florida completed in 1928, and designed by Milton E. Hedges, with the sculpture in charge of Leo Laurie, is simply designed with delightful pierced stone grills and parapets lightening the top, yet retaining a solidity of form which is exquisite. The shaft proper is simple gaining emphasis of height by the use of verticals of a buttress character. The base is of adequate weight and relation to the tower above. Simple in its design with a simple door punched into the wall on the front, a window containing simple tracery on the rear and simple plaques on the sides, this base is united to the shaft by a delightfully composed narrow frieze band. The detail of the grills and reliefs are conventionalized plant and bird forms but realism is evident to a marked degree. Ornament and form combine in this monument to result in a homogeneous design of dignity, power, and authority in its mass, and exact proportion, grace, and loveliness in its detail.

Several American Battle Monuments, illustrated by the Pennsylvania State Monument at Gettysburg, constructed in France and Belgium and designed by Paul Cret are delightful in their simplicity. Stripped of all irrelevant detail these monuments are purely forms of sensitively decorated structural forms. Fluted or plain verticals crossed by a horizontal simple entablature with little wall placed ornament. The qualities of dignity, quiet, serenity and memory so essential of memorial design is gained in these monuments by perfect control of simplicity of form and ornament.

The Chrysler Building in New York designed by William Van Alen is perhaps the most illogically designed structure of the new manner.
Strong horizontals battle with the verticals resulting in confusion and lack of harmony; then suddenly at the top an odd spire rises into the air possibly to gain the appearance of greater height. It is decidedly a spire of modern forms but lacks unity with the whole design. The ornament is that of colored brick and tile of geometric pattern at times stressing the vertical, at others the horizontal. The design has no ornament of historic form but the ornament, new in character, is as inorganic as those arch forms of history. The building as a unit lacks consistency and leaves one with the feeling of an attempted trick rather than a logical, well-studied, rational architectural composition. Here definiteness of form and function is lost not behind a mass of historic ornament but behind ornament of a new character, detail that if composed in harmony might have been very pleasant.

The New Building in New York, designed by Howells and Hood, is ornamented with logical detail of colored panels of relief geometric pattern between the floors. The vertical is emphasized by leaving the vertical structure plane and projected slightly beyond the windows and horizontals. Weakness of the lower portion is overcome by a more logical entrance motif of an imposing mass with a low opening cut through it. Insignificant, illogical ornament is omitted at the top, being replaced by a pleasant, simple silhouette. Logic and harmony is the theory of this design.

The Empire State Building in New York, planned by Shreve, Lamb, and Harmon, has its aesthetic emphasis placed upon the silhouette. Form is the predominant feature of the composition, the vertical being emphasized by de-
veloping the window areas and horizontals in slits, between the forms of the vertical supports. The slits are given vertical feel-
ing by ornamenting the panels between floors so as to form a continuous line of the ver-
tical. The lower five floors are composed as a base with the use of shallow pilasters of simple detail dividing the bays. The en-
trance feature is accentuated by pilasters of more impressive scale than those of the
bays. Above this base the ornament is used merely to carry out the expression of form.
The ornament is designed recognizing the in-
capability of examining the subject matter,
that it is only the adding of interest to,
and unity of, form that is important. To me the earlier studies, in which the mooring
mast was omitted, were superior, in refine-
ment and impressiveness, to the final design.
The mooring mast is obviously an attempt to
finish the building off in a spire, a linger-
ing influence of the medieval tower. It is
purely inorganic ornament. Excluding the
mooring mast the building is one of function-
el, unified composition. Logical, simple
ornament is used as an aid in accomplishing
this result.
The buildings of the Chicago World's
Fair of 1893 are of importance in this the-
is because of their utter disregard of orna-
ment. This was a scientific exposition and
buildings were erected as scientific experi-
ments and tricks. In one case the scientific,
engineering desire ruled to the extent of a
structure built upon the suspension bridge
formulas. The aesthetic result of this de-
sign was hideous. Several buildings such as
the Electrical Building, the Hall of Science,
and the Administration Building were rather
well proportioned and an interesting com-
position of masses but decidedly lacked or-
nament. Color was the hope for a decorative
scheme, and though it gave life and 'punch'
to the group, it did not suffice for a logical
complete ornamental solution. Where relief
ornament is used, as on the Electrical Group,
it is out of scale and leads toward the break-
ing up of unity.

Paul Cret reviews the buildings as follows:
"The basic theme of the 1933 Fair was the sci-
entific achievements of a century, and Science,
of all human activities, is the least fettered
by tradition. Its progress is, in fact,
measured by its aptitude to question yester-
day's beliefs and data. This alone is justi-
fication enough of the Architectural Commission
of the 1933 World's Fair when they set aside,
along with many other precedents, orders and
festoons, and decided to experiment with to-
day's forms — if it is foolhardy to say to-
morrow!" This, is a reasonable criticism of
the Fair and if any one major thing was learned
in this experiment it is that the 'Modern
Manner' demands a consideration of ornament
as logical, sensible, and harmonious as the
great styles of the past.

The design of Rockefeller Radio City in
New York, planned by an architectural board
including Reinhard and Hofmeister, Hood and
Ponilieux, and Corbett, Harrison, and Mac-
Murray, is perhaps the most organic and
logical group of tall buildings yet created.
Planned with the idea of more efficiency

1. Paul P. Cret — The Festive Stage Setting

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resulting from openness, and airiness, gardens have been designed on the roofs of the lower levels of the composition. Strictest economy in construction is replaced by the idea that liveliness and beauty will attract greater income and efficiency. The problem of aesthetics and human utility is given greater emphasis than the usual design where mere commercial utility was the essential element. The problem of economy is, however, carefully considered in that the ornament used is a part of the structural material and not an added amount of carved columns, festoons, arched mouldings, and trinkets of various kinds. The buildings are composed so as to be viewed from all sides, this possibility being accomplished by the forms of lower levels surrounding the towers nearer the center, and from the top, the acceptance of viewing it from other tall buildings. The lower portion has a pleasing solidity in comparison to the majority of contemporary buildings, out of which the well studied masses of the towers grow logically. This solidity is possible because of the several theatres being located at the sides of the lower levels which both demands and invites a plain wall surface on the exterior. The great entrances have no feeling of weakness and appear logical and harmonious with the entire simplicity and directness of the design.

The ornament, though at times heavy in its execution, continually aids in the articulation and beautifying of functional elements. A sensitive relation of masses
and the proportion of these masses is at all times the essential element in this vast material expression of a gigantic sensual conception. The plain surfaces of the lower levels are given interest by sensitive ornament, the form is expressed more clearly through the diligent study of and explanatory use of ornament. The ornament at the garden levels is organic and logical and designed for close observance as well as unity of the whole design. As the building rises in height it becomes decoration of areas, being broad and of a pattern to give interest to form, not pattern for its own sake. The structure is finished at the top in delightful forms of strength and truthfulness, not a lace-like weak addition of illogical ornament.

The whole design is one of the recognition and solution of a vast program in which economy, beauty, and human utility were all carefully considered. These necessitated organic ornament which would lead to a pleasing, clear expression of form and proportion. This building has accomplished gratifying results the material expression of the spiritual concept.

I bring to a close my survey of contemporary architecture with the examination of one of the foremost buildings of the new manner, the Folger Shakespeare Library in Washington, designed by Paul Cret in association with Alexander Trowbridge. The succession of studies shows the continual simplication of form and ornament. In the early studies ornament was that of an applied nature, though the elements of the form were clearly evident, the detail was spotty

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and caused a certain amount of confusion and a number of points of interest. As the composition was studied this defect became less apparent and the design became more unified and harmonious. Attached pilasters and free standing sculpture gave way to the fluting of actual structural members and the use of organic relief sculpture. The recessing of the entrances with a sensitive series of plain forms, rather than projecting the entrances from the surface in the masses of pylons as in the earlier studies is more pleasing and logical.

The final solution of the problem is dignified, quiet, simple, and functional. The design agrees delightfully with the surroundings of Classic Washington and yet is a modern design. At no point in the composition is ornament created to be in itself a spot of interest but rather for the continuity and interest of the whole form. Sensitive proportion and relation of masses is the predominant characteristic of this building and ornament is so placed as to accentuate, define, and give delightful interest to the superior form. But when the ornament has been so placed as to be of unifying and decorative worth to the composition it is diligently studied for its own form and beauty. The bas-reliefs, the subject matter of which is the Shakespearean drama, are composed and executed with greatest care and skill. The ornamental bands are delightful in their own worth as well as an essential and delightfully used element of the complete design. The grills and metal balconies are most simply and functionally designed, and are in charming
relation and harmony with the complete picture.

Here is a modern building which in its design has the essentials of an ideal art, that of a perfect balance of the spiritual content and the material embodiment or form. It is that charming and satisfying material expression of the sensual concept we so admire in the works of the fifth century Greeks, the Romans of the Augustan period, and the twelfth and early thirteenth century Gothic that causes us to consider this design as the finest expression of the new manner. It is of a new architecture, not build as an oddity or desire to merely be different, but a realization, acceptance, and solution the fundamental principles of architecture, that of form and function expressed in the medium and spirit of the time.

Beauty, that is the aesthetic quality of architecture, is again being accomplished by a rational, sensitive manner of ornamentation. Architects are accepting necessary form and function and out of it, through careful study, evolving pleasing proportions and relation of masses, and ornamenting these with organic, logical detail. They have realized that the attempt to gain beauty by the use of inorganic, though perhaps delightful, ornament of a historic nature is heresy. Rationality, truth, and sincerity are the basic principals of the new architecture.
ORNAMENT FOR THE NEW ARCHITECTURE.
What has been accomplished during the past fifty years since the first evidences of a new manner of architecture were observed? Has any progress been made with reference to the ornamentation of structure? Is the ornament being studied and logically thought out or merely being cast haphazardly upon the face of the structure? Are the buildings being overly decorated or is there a lack of ornament? Are the architects of today on the right track?

One of the unfortunate features of the present manner of ornamentation is the use of bits of carving copied from historic styles. The mass, proportion, and character of the structures have entirely changed from those of the structures for which that ornament was created. Such use of ornament is not sincere and gives to the building outward forms that are entirely apart from its structural members. We at times criticize the Romans for their veneering of concrete structural members with marble columns and cornices; but are not our own architects doing this same thing with even more unfortunate results. The marble veneers of Roman structure did not definitely deny the structural members. Vertical supports were shown by columns and horizontal members by cornices or ornamental bands. Contemporary architects have taken the liberty of designing ornament based upon the detail created for the arch and pier construction of the Romanesque and Gothic periods and placing it upon structures of today in which the entire engineering principles are founded upon the post and lintel system. The use of such false ornament breaks down all sense of truth and necessity, which are the obvious foundations
upon which architecture is created. Ruskin tells us, "We may not be able to command
good, or beautiful, or inventive, architecture; but we can command an honest archi-
tecture; the meanness of poverty may be
pardoned, the sternness of utility respected;
but what is there but scorn for the meanness
of deception?"1 This phrase most capably
emphasizes the necessity of truth in archi-
tectural design. Whatever may be the aes-
thetic result always the effort should be
truthful. Architecture most certainly is
an art of sincerity and simplicity, as well
as of the present; that is, designed not
toward fancy but toward necessity, and it
should be the object of ornament to aid in
the clarification of these qualities, to
aid in distinguishing between the more and
less important elements of the structure and
at the same time beautify the building, not
to break down the structural sincerity as
false sincerity as false ornament does.

An excellent example of false ornament
is the use of Gothic detail in tall building
designs. Buttresses and screens at upper
levels are most inorganic. They have no
structural significance whatsoever and add
confusion to the design. Gothic tracery
is used at a level where its delicacy and
craftsmanship is entirely wasted. The
buttresses and screens are self supported,
but the central portion of the tower is not
carried to the ground by the buttresses.
The masonry of the tower is applied to steel
supports and carried directly to the lower
columns. While the resultant design is

1. John Ruskin, The Seven Lamps of Archi-
tecture, Sixth Edition, 1889, p.55
relatively beautiful it is visibly untruthful. A more rational result could have been gained by the use of organic ornament. Architects are content to design this structure to meet their fancy rather than to meet the structural fundamentals. The design is preconceived and inorganic ornament included to attain this desire. Ornament must be subordinate to architecture not architecture subordinate to ornament. What can be more silly or out of place than the use of ornament, characteristic of self supporting masonry walls, cast upon our modern buildings of steel and concrete?

Our modern office and commercial buildings of steel and concrete structural systems require fewer supports and of smaller dimension, than those buildings of medieval times. In the buildings of today the walls are but shells the entire engineering work being done by the frame thus allowing a minimum thickness of building material. Such structures are not the place for ornament created to add interest and beauty to a medieval edifice. In medieval structures the load of the massive walls had to be carried past the windows to the walls below. The arch forms carried the load from above to the sides of the window and downward. The lintel was insufficient for this task. Today, with the load of the walls divided into horizontal and vertical sections, there is no need for the arch. Though perhaps beautifully carved, the strong columns or pilasters with their capitals which separated or flanked the windows of the medieval structures would be unnecessary in the present manner of construction. Likewise the buttresses were developed not as a bit of ornament but as a necessity. Buttresses and ornamented arches
were then organic and resulted from creative genius but today they are forced copies of once pleasing forms and display a degeneracy in architectural endeavor.

Ruskin tells us, "The architect is not bound to exhibit structure; nor are we to complain of him for concealing it, any more than we should regret that the outer surfaces of the human frame conceal much of its anatomy; nevertheless, that building will generally be the noblest, which to an intelligent eye discovers the great secrets of its structure, as an animal form does, although from a careless observer they may be concealed. In the vaulting of a Gothic roof it is no deceit to throw the strength into the ribs of it, and make the intermediate vault a mere shell. Such a structure would be presumed by an intelligent observer, the first time he saw such a roof; and the beauty of its traceries would be enhanced to him if they confessed and followed the lines of its main strength. If, however, the intermediate shell were made of wood instead of stone, and whitewashed to look like the rest, — this would, of course, be direct deceit, and altogether unpardonable."

Granting, as Ruskin did, that the architect is not bound to exhibit structure; it must still be insisted that he not attempt to conceal the frame by imposing upon it detail of an entirely different structural character. Perhaps it is not necessary to exhibit structure; perhaps structure might be pleasantly concealed, in fact in the case of the steel frame it must be. By the use of slender shafts attached to neces-

easily heavy piers, to lighten their appearance and give them slenderness and interest, has historic precedent illustrated a pleasant system of concealing structure; but to force an historic type of ornament upon another type of construction is false and most untruthful. Most assuredly we, as well as Ruskin, when criticising the use of ornament created for structures of great weight, thick walls, and of the arch and pier type upon the thin walled, light, column and beam system of today would distinguish it as direct deceit, and unpardonable.

The same deceit is characteristic of the use of Classic or Renaissance detail on contemporary structure. Though the detail in itself might be delightful bits of composition and craftsmanship, a distinct feeling of falsity is given. The ornament supposedly carrying loads is merely carrying itself. Also, bits of decoration such as turrets, cupolas, and colonnades at the upper levels are out of the sight of the street level and are of little actual decorative value. How absurd to transfer such a manner of ornament to our present structures which are thin shells rather than solids. The men of the past created an excellent manner of ornament upon their structural necessities. Contemporary architects should abandon the copying of past detail and invent a distinctive ornament founded upon the present structural systems before they may hope to become creators comparable with the architects of antiquity and of the Middle Ages. They must move from the fields of thoughtlessness to those of truth and appropriateness. We may pardon
A designer for poverty but never for deception.

A great number of our so-called modernists are doing this. Either they are using a direct copy of the Romanesque, Gothic, or Classic ornament, or they are employing a crude imitation of these. The solution of the decorative problem is not so simple as to merely change the technique of a bygone period, but it is a problem in which the designer must return to fundamental principles. Ornament must be created with an entirely fitting end in view, that of designing ornament characteristic of the engineering and plastic qualities of the medium in present use. The post and lintel system used in the past, The numerous stone supports of antiquity are unnecessary. New proportions are today resultant of engineering advancement. New, fresh ornament must be created upon these new proportions.

The delightful decorative bits of the past, which have been brought to our contemporary buildings, were created for thick walls. Many of them depended upon the deep reveal of the walls, the play of light and shade, for their pleasing effect. The strong wall covered moulds, columns, and caps gave an added appearance of strength to the walls. Their appropriateness and use emphasized their beauty. But these same, once delightful, bits of decoration appear forced and clumsy when placed in the thin walls of present day edifices. They add unnecessary load to the wall. In many instances they seem so heavy, unnecessary, and forced that an appearance of breaking away from the body of the structure is given. In the thick walls of the past bits of carving set
wall into the walls seemed indispensable; there was no feeling of insecurity; the ornament was a part of the wall. Not so when used on present day structures; this type of ornament seems to emphasize weakness rather than strength.

An equally inappropriate treatment occurs in the tall office building in the stacking of one classic temple upon another. This method of ornamenting the skyscraper becomes even more ridiculous than the transferring of Romanesque, Gothic and Classic detail to these buildings of the twentieth century. The classic style was unquestionably a horizontal type. It becomes terribly awkward and clumsy when transferred to a vertical modern structure. Though the detail in itself be well studied and really delightful in its proportion, it becomes confusing when placed upon an office building in which height is a necessity. The Classic is not beneficial to the expression of height and very easily causes the design as a whole to appear squat and out of scale.

The set back laws of our cities give to architectural design a problem which has been solved, in many instances, unfortunately by the use of the Classic manner. A Roman or Greek colonnade used as a basis for the decoration of each portion results in a series of separately designed portions stacked one upon the other with little relation or tie between them. An office building must be designed as a unit with each portion growing out of the other. It must be a continuous design. Decoration designed for each portion separately, in a horizontal manner, most
assuredly does not accomplish this goal. When these sections are designed separately and then stacked one upon another, the effect gained is such as a Parthenon mounted upon the base of the Tomb at Halicarnassus with the Temple of Fortune Virilia and the Monument of Lysicrates above it. This is a bit exaggerated, but there are cases in which the result has been nearly as conglomerated. Ornament that breaks down harmony of composition is not good ornament and this fault must be corrected before a satisfactory style can be hoped for. Ornament must be simple and direct; ornament designed in sections does not lead to this end.

There is a new problem to be solved with regard to the ornamenting of the tall steel frame building. The early manner of decorating this type of structure was impossible; the use of a conglomerate of ornament of historic styles cast upon the face of the building which had no fundamental place there. The architects were confronted with a new problem; new materials had been suddenly given to them; they did not know which way to turn for ornament; they were at a loss with regard to composition and proportion; the sudden change of conditions both of structure and use left them in a daze. Something had to be done immediately so they naturally looked to history. The tall building with numerous floors of equal importance had no precedent. They looked to the tall structures of history; some of which were perhaps as tall as the buildings which they had to design; heights of the naves of Gothic
Cathedrals ran over a hundred feet with the towers even taller. But the structures were designed as one dignified room, now the architects had to solve the problem of a number of floors, history had not solved it. The Gothic with its strong vertical feeling and clearly reading a structure of one room did not meet the problem. To put in the floors and replace the large vertical windows with bands of smaller windows would most surely confuse the design. Why not the tower? Here was a thought. But the base of the Gothic tower was only about thirty five or forty feet square. Building requirements very seldom permitted a square plan and if it did a square limited to those dimensions was impossible for usefulness. When the square of a greater base, or a rectangle was used and limited to say one hundred and twenty feet in height the delightful proportions of the Gothic tower were lost and a clumsy structure resulted. Another problem helped to eliminate the tower form; the tower was effective because of its solidness and then it was pierced by a number of windows the feeling of the strong Gothic tower was changed to weakness.

What were the architects to do? Gothic form could not be taken directly, neither could the Renaissance or Classic. Why not use the ornament of the past upon this new form? This is exactly what the great majority of the architects did. They were trying to force an ornament of history upon a form that had no precedent, and their result was
most unsatisfactory. When it was realized that this method was not the solution, some of the designers began to seek out a solution involving a new ornament designed for the new form. Some of the results thus far have been most unfortunate, others just a way of escaping the issue, and a few really showing a trace of creative ability.

The phrase "Architecture begins where the calculations end" is indeed a most logical conclusion. The calculations, that is engineering requirements, along with utility solves the form; it is architecture that solves the appearance. Architecture can be defined as a pleasing, truthful exterior expression of a necessary structural frame. More structure will not satisfy the aesthetic demands of men. Mundane architecture in its plainness and extreme recognition of form is more than engineering. It has a sensitive relation and proportion of forms in addition to the structural necessities and though lacking ornament it is truly architecture, not merely dull crates or boxes as many designs of factories and commercial buildings of the nineteenth century.

Ornament should be more than mere detail. It should add interest to and define the composition upon which it is placed. A band of ornament which divides a composition is more harmful to the design than no ornament. That is the delightful point of these plain

1. Paul Cret, the Architect as Collaborator with the Engineer, Architectural Forum p.101 v.49.
studies of mass, etc., of the Germans and
French; they appear as a complete unit
not confused or broken up by bril-
liant, delicate, or bold bits of deco-
ration. Rather they are a sincere
study of form with a minimum of orna-
ment, and that little detail used to
pull together the whole form.

Modern structural systems of
steel and concrete clothed in a thin
veneer of stone or brick demand a de-
corative system of surface ornament
which will be a part of the clothing
material. The ornament must be thin
in its character for heavy sculpture
and moulds can find no place in or on
a thin wall. To be honest and sin-
cere it must be based upon the post
and lintel form which in general is
the basis of the steel and concrete
frame. The arch form demands more
space and buttressing than modern us-
age can allow. The greatest possible
floor area and volume are definite de-
mands of modern architecture. Orna-
ment of arched origin used upon the
steel frame is illogical and inorgan-
ic.

The problem of ornamenting the
tall building is most difficult. The
structural frame is that of welded
steel members or system of concrete
beams and columns forming a continui-
ty of working members, each essential
to the other for function. Which is
more important the vertical or the
horizontal? Or are they perhaps of
equal importance? Which shall be giv-
en most importance in the external ex-
pression? In the frame the columns extend slightly, half its dimension in fact, beyond the face of the beams and girder thus giving creating vertical lines when the frame is covered. This admits a logical solution in a vertical expression. But on the other hand this form of bays set slightly back of the columns loses all its form at night and the lighted interiors emphasize the horizontals of the floor levels. But architecture is created to be pleasing in appearance and appearance is most evident by day. At night effect and beauty lies merely in the silhouette. Architecture then should be ornamented so to be viewed by day rather than at night. Too, from experiment, the emphasizing of the horizontal tensis to cause a layer cake effect in composition, and the use of vertical and horizontal in design tends toward confusion and unpleasantness. The attempt to create a flat surface punched at intervals by windows causes dullness and a box-like form. To express the vertical gives the design more freedom and impressiveness.

There evolves the conclusion that the most pleasant, logical, and harmonious manner of expression in tall building design is that of giving emphasis to the vertical. To aid in obtaining unity and completeness of form as well as add interest to the design is the demand made of ornament. Ornament at the higher levels is not capable of being closely seen, its im-
importance is to articulate form and replace dullness. The vertical structural forms attain more solidity and force when left plain, as the buttresses of the Medievalists and columns of the Greeks, except for well composed detail at the top and at the lower portion but care must be taken in order that the form does not lose strength. The spandrels or horizontals of the bays present opportunity for relief sculptured ornament. This detail should be designed so as to aid in the clarifying of the form, the unifying of the composition, rather than for its own worth as a bit of sculpture. I do not mean that design and craftsmanship of the detail should be neglected. Such an action would result most unfortunately. Rather I mean that when designing the ornament the form of the entire composition is of primary importance. Indeed the decoration must be of pleasing design but always carefully designed so as to serve its purpose as the beautifying and defining element of structural form.

The ornament and composition of the lower floors must, to obtain a pleasing design, appear as solid as possible. Of course the commercial usage of buildings demand as much window space as is obtainable and structural formula allows minimum support but the aesthetic desire demands a base. Thus the entire composition of the lower portion of the building is a decorative problem. At this poe-
tion detail is closely observed and must be designed to be seen closely. It must be of a scale to permit a pleasant base for the tower which rises above. The designer must accept in such a problem the aesthetic demand as an important an element as engineering.

It is necessary that I explain my distinction between classicism and classic detail. I do not in any sense mean that to tend toward classicism in design is the wrong route. I feel that the finest works of today exhibit a distinct classic atmosphere, that feeling of simplicity, dignity, and soundness of composition so characteristic of the classic manner. I feel that Paul Cret clearly covered this question when he wrote, "We may, after casting aside a good many of the genuine antiques that we are incorporating in our buildings - columns and cartouches, buttresses and ogives, battlements, and gargoyles, - discover in our system of structural construction more possibilities than we have seen in it so far." Again he tells us, "It will take a little time before this elementary truth has sunk more deeply into our consciousness; but when it does, a new classicism, achieving beauty through good proportions, rather than through the pictur-

1. Paul Cret, Ten Years of Modernism, Federal Architect, p.8 v.4.
esque, will be born! 1. There can be no more satisfying manner than classicism; but the use of classic detail on present form does not constitute classicism; rather it constitutes the opposite.

"Five lines where three are enough is stupidity. Nine pounds where three are sufficient is obesity. But to eliminate expressive words in speaking or writing - words that intensify or vivify meaning is not simplicity. Nor is similar elimination in architecture simplicity. It may be, or usually is, stupidity. In architecture, expressive changes of surface, emphasis of line and especially textures of material or imaginative pattern may go to make facts more elegant - forms more significant. Elimination therefore, may be just as meaningless as elaboration, perhaps more often is so. To know what to leave out and what to put in; just where and just how; ah, that is to have been educated in knowledge of simplicity - toward ultimate Freedom of Expression."

These are the words of Frank Lloyd Wright, one of the foremost exponents of contemporary architecture, with regard to simplicity of design.

Paul Cret tells us when speaking of the so called modernism: "It claims the discovery, or rediscovery of funct-


2. Frank Lloyd Wright, Autobiography, p.144
tionalism. I unfortunately lack the strong faith of the modernists in the "functionality" of their architecture. Looking at it with a critical eye, I cannot see in it anything but the age-old method which consists in being logical, truthful and functional in design as long as it is convenient, and being decidedly less so when certain aesthetic results are wanted."1. He goes on to point out where certain twists, turns and breaks in the plane surface of our slab construction are no more functional than coffers imitating the Greek system, of marble lintels or the Gothic wood beams.

It is seen that the explanations of simplicity by those two modernists Wright and Cret, one trained in Chicago along the theories of Pugin and Viollet-le-Duc, and the other trained in the Beaux-Arts, one a student of medievalism, the other a student of classicism, is primarily the same. They both reach the conclusion that functionalism is appropriate so long as it is convenient to the aesthetic requirements; that the lack of ornament may be as stupid as an excess of ornament.

Certainly the fundamental principles of ornament could not be more clearly put forth than has been done here in a few emphatic phrases by these two men. Truly appropriate and expressive ornament certainly leads toward the goal of simplicity and directness of design. A structure might be easily over ornamented, as is seen in such historic structures as the church of

1. Paul Cret, Ten years of Modernism. Federal architect p.9 v.6
S. Maclou at Rouen, the Cathedral of Milan, or the Certosa at Pavia. In all these examples the detail itself shows excellent craftsmanship and design but is most inorganic with regard to the structure. At S. Maclou, beautifully designed, exquisite bits of detail form a most delightful and picturesque porch; but this porch, with all its delightful qualities, weakens the strength, simplicity, and directness of the design.

Also in examples of contemporary architecture are found numerous over-decorated structures, structures upon which a manner of ornamentation is placed which adds both lines and weight and does not intensify or vivify meaning; not only ornament of a historic style used directly upon the modern, but a mass of geometric or conventionalized forms of no meaning, merely a mass of incoherent lines that clutter what might be a rather well proportioned structure leads to confusion. Ornament must be clear and limited to those lines or forms that lead to the expression of the structure, ornament of no meaning other than to roughen the surface, with seemingly no regard toward the expressing of the planes and form of the design, is the fault of much of the present day work. This is stupidity.

On the other hand there is what has been called Modern Architecture, architecture that has no or practically no ornament—a style that depends entirely upon proportion and a pleasant combination of masses. No ornament is used to intensify certain portions or to aid in any manner
the distinguishing certain planes and surfaces from others; there is no attempt to soften the surface. A study of proportion and composition, which does result in many instances, in a rather interesting and pleasing structure, is the fundamental basis of this architecture. The architects of this type depend entirely upon the color of their materials and well-designed and studied openings for their relief and interest. But these buildings seem to lack finish; they appear wanting for clothing; the presence of enough ornament is not sensed; important portions are not sufficiently distinguished; simplicity is not gained here because of the lack of ornament, just as in other instances it was lost because of unnecessary or inappropriate ornament. This is sterility.

During the last half century the manner of architectural design has gradually developed through steps of simplification and reason from the over-ornate, illogical styles of classicism and romanticism, through a more logical and rational period, in which the designs retained the ornament of historic styles but with less sentimental and more scientific application, to the new manner of functional and direct expression, resulting in an organic aesthetic expression of structural form. Outstanding designs of the new movement display a sensitive study of form, irrelevant detail has been stripped from the design, only that which is organic being retained. Architects have realized that construction should be decorated and
that decoration should never be purposely
constructed. True a lack of ornament, in
some instances, proves as unpleasant and
stupid as the ornament, but the new archi-
tecture is a creative answer to the demand
that architecture is the material ex-
pression of the wants, the faculties, and
the sentiments of the age in which it is
created.

Modern? What does it mean in archi-
tecture, ornament, and art? When do we
see the first evidences of this new manner?
What has been its progress? Is the work
thus far designed worthy of being recognized
as a style of architecture, or is it merely
a fad which will perish with no advance in
creative efforts? Will it continue as
a rather unstudied, undeveloped period, the
dark age between the past and the future?
These are a few of the multitude of questions
being asked by those persons who are working
untiringly toward a common end - that of de-
veloping in this noisy and scientific age of
vitality, energy, and unrest another great
era of architectural accomplishments, where
ornament supplements, rather than detracts
from the design. Such men have faith in
their efforts and believe that a new era is
in its formative period. They admit that a
great deal of the present work is funda-
mentally unsound, that ornament which does
not fit the structural and economic con-
ditions of the day is being forced upon the
design, yet they feel that their study and
efforts will overcome these errors, and
gradually a manner of worthy ornamentation
will emerge.
In all historic styles of architecture, the ornament of the early years was somewhat crude and uncertain. It showed clearly that the material had to be mastered. In the early periods the designers met necessary conditions resulting from their structural methods. This early ornament showed a lack of a mastery of craftmanship but the designers most assuredly created decoration for the specific structure, placing ornament where the building appeared bare and lacking of interest or emphasis. Ornament was simple in design, in order that the craftsman might transfer it to the building material.

From such a beginning men work on and on, developing their abstract designs and ideas of ornamentation into concrete results, and as they bring their thoughts from the realms of dreamland into those of actuality, they learn by experience. They develop a manner of ornamentation which supplements and explains the forms and the planes of their designs; ornament that vivifies and intensifies the composition.

When these essential conditions are accomplished a balance is reached between the material and the spiritual content of the problem. Here we find the craftsmen and the aesthetic sense developed to an extent where the ornament is used to explain the structural members of the design as well as to beautify the building and make it pleasing in its appearance to man. This period of balance follows that age of study and experimenting when the matter is the ruling element. It is followed by an era of decline which is seen near the close of every
great epoch of architecture, that period in which technique unquestionably rules, that period where the mind and craftsmanship takes excessive liberty with material.

During this declining period, ornament is designed to show the advancement that man has made in the knowledge of his material, the power of mind over matter. Ornament is placed profusely upon the building and exquisite bits of carving are placed in complicated arrangements. There is no longer a balance but an overlay of rich, well carved ornament is created which completely hides the structural members of the building, as well as disguises the nature of the material in which the carving is done.

Thus it must be concluded that a perfect agreement and balance of content and form, that is the aesthetic and functional elements, or beauty and usefulness, is the essential idea of architectural decoration, as well as all types of art. The ornament can not remain external and apart from the form; the outward appearance must express the inner content or requirement of the structure; the ornament must be a part of the structure. When this is accomplished there is a perfect embodiment of the idea in a conscious form, and this is the essential quality of the architecture or the culminating period of every age.

It is unquestionable that contemporary architecture, to a great extent has no balance of matter and spirit; there is little attempt to combine the inner content and outward appearance. Perhaps such a period is yet to come. True, a number of designs of the new
rnamor do exhibit a delightful unity of ornamentation characteristic of modern usage and structure, but the multitude of structures ornamented with miscellaneous bits of historic detail illogically used constitute the greater portion of the contemporary buildings. It is entirely possible that scarcely any of our ordinary structures of today will be important to the future; some of them, yes; but just as we think of Greece and the Pre-Classic periods in terms only of their best examples, so too will a few outstanding examples of today be remembered in the future. Surely Greece was not an age of "Parthenons." There were structures of an inferior nature; but our aesthetic sense does not lead us to study these. We want to see only the best; and the same will be true of the future.

As has been seen, tendency of the designers, during the last decade, has slowly turned toward a period of truth and sincerity of composition based on the ornamentation of necessary structural forms resulting from new structural formulas and materials. Perhaps the latter portion of the nineteenth century and the early portion of the twentieth century should not be considered as the beginning of a new manner of design, but rather as a final attempt at the old, with a few important figures living ahead of their age. These few men felt the need of the new manner, but the majority were content to go on copying the decorative manner of those before them, a most evil influence upon the architecture of a period.

Each age has its different functional requirements, that is the use and embodying
medium. Thus each age must meet its own aesthetic problems. In each age different structural, conditions as well as economic, social, and commercial problems are existent. Architects must create structures which will meet the human, economic, and structural requirements, as well as spiritual requirements of that age, yet meet the essential quality of being beautiful—that is, pleasing to the aesthetic qualities of the men of their time. To be a successful style, architecture must meet the popular demands and receive an affirmative response from the laymen of the day. No architecture which is the creation of a few and not popular with the many can survive.

Shelter has been a necessity, and beauty a desire of man since the very beginning of his existence. Man needed shelter, and he wanted it to have an attractive appearance. Architecture and its ornamentation are the outgrowth of these conditions of man's existence. Man created and developed structures to house his social requirements and activities, and his many scientific and mechanical discoveries, as well as his religious activities which has been associated in some manner with all men. It has been the religious edifices through all ages which were the most eternally built, and it is from thus that the greatest portion of our ancient as well as medieval examples are drawn.

All ages possessed structures of a commercial and domestic character; but as today they were of a temporary nature. Perhaps inspired by the everlasting nature of the Supreme Being, it is the structures of worship which have been the most lasting monuments of architecture, and it is these edifices of the past that have remained.
in the best condition and from which the
great portion of the history of archi-
tectural engineering and ornamentation is
gained. The decorative problem however
remains primarily the same whether the
building be of a commercial usage or of a
religious nature.
Men of different ages have had differ-
ent aesthetic views, unfortunately perhaps,
for if this had not been the case there
probably would not have occurred these peri-
ods of decline such as the Flamboyant and
the Baroque. If there had not been the de-
sires for such design, these periods surely
would not have appeared. I believe, how-
ever, that we will all agree that the
superior aesthetic quality has forever re-
mained the same, that quality of balance
between matter and spirit which results
in truth and simplicity of design. Has
not fifth century Greek architecture been
recognized by all ages following it as
great art? Could this be the case if the
essential aesthetic requirements did not
remain the same? Though interesting and
of masterful craftsmanship, the architectural
ornament of the Flamboyant Gothic is not
seen as a superior art today; it is not
fundamentally sound; and it is recognized
as an inferior, and less truthful style.
It was a manner created to express man's
mastery of stone carving; delightful tech-
nique is evident. Independently a charm-
ing bit of lacelike detail or craftsmanship
is evident but combined with structure it
is most inadequate in displaying the strength
and solidarity required to carry the great
load of the stone walls and vaults. One is
compelled to admit that such ornament is
inferior in its appeal to man's sense of
beauty and appropriateness. Keats voiced the opinion of the masses in five well chosen words, "Beauty is truth, truth beauty!". Then superior ornament, that is ornament which is truthful and appropriate, is created it will unquestionably be recognized by the future.

To make the building pleasing in appearance is the sole purpose of ornament, and this end may be reached through several major channels. At this point I think it very appropriate to investigate a statement made by Owen Jones when speaking of Egyptian art. He says: "Egyptian art is of three kinds: that which is constructive, or forming a part of the monument itself, of which it is the outward and graceful covering of the skeleton within; that which is representative, but at the same time conventionally rendered; and that which is simply decorative."

If all successful methods of decoration were observed closely, would it not be found that the ornamental principles of all historic periods were primarily the same? Did not the Greeks, Egyptians, Mesopotamians, the Medievalists, in some cases the Romans, and the designers of the Renaissance, in its earlier stages, make use of structural motives as decoration in themselves; decoration used to emphasize structure; structural forms used as decoration emphasizing other structural forms; and decoration used as a flat pattern over the entire sur-

1. Source, Tiske Kimball, American Architecture, p.148

face of the structure corresponding to the representative style of the Egyptians. Do not the columns of the Parthenon combine perfectly the structural knowledge and the sturdy character of the Greeks? Do not the lofty vaulted naves and the true facades and flying buttresses of the medievalists denote both their mastery of engineering and their deep spiritual beliefs? The ornament of all ages is the same fundamentally. It is structural, representative, or merely to emphasize structure; structural forms used as decoration emphasizing other structural forms; and decoration used as a flat pattern over the entire surface of the structure corresponding to the representative style of the Egyptians. All ornament must be truthful; ornament that does not hold to and appear to be a part of the structure is inferior.

Ornament to correctly fulfill its purpose should pull the structure into one complete unit with the decoration emphasizing the important points of the design rather than drawing the eye away from them toward complicated bits of carving such as is the case in Hellenistic Greek, the Flamboyant Gothic, and the Baroque Renaissance. The structure must read as a single complete unit, and unless the ornament lends toward this end it does not meet the aesthetic requirements that have been set up for ornament by the architecture of the past. Until modern ornament is designed to be a part of the structure designed to bring out the important points of the project and created in keeping with the
time and the structural conditions, this so called modern period can not be worthy of a great deal of consideration as a successful manner in ornamentation.

The economic conditions of all ages have greatly influenced the ornament of that day. The simplicity of the Greeks was perhaps partially the result of modest wealth, for as the Greek nation grew wealthier, their architecture became more complex and ostentatious. The grand, elaborate ornamentation of the Romans resulted largely from their great wealth. The simple, direct architecture of the Romanesque and early Gothic contrasted with the complex, precise, gorgeous detail of the Flamboyant portrays the growth of the wealth of the church.

The value of land affects the plan and height of the contemporary commercial structure. The cost of materials today greatly affects the ornament. Ornament must be created which can be carved or executed at the least possible cost. This element insists upon fundamental ornament, that is ornament which is a part of the form. In the Roman and Medieval periods the desire was to show power and wealth, in one case national, in the other religious, but today the aim most assuredly in commercial structures, and also, generally, in religious edifices is to attain a pleasing design that meets the needs of utility as economically as possible. Ornament must be simple and direct. Perhaps ornament would be of a higher quality throughout history if it were not for the periods of great wealth. It is certain that ornament created in
the United States during the last several years is of a higher quality than
that created for the ten years preceding when the economic condition of this
country was at its height. Perhaps the designers have gained knowledge, but it
remains an important point that ornament created now must be economical; the cast-
ing of ornamental features that are merely additions to the surface are wasteful.
I wonder if the present economic conditions have not played a greater part in
the simplification and directness of or-
nament than it is generally given cred-
it. Architects are compelled to create
ornament that will be a part of the
structure. Perhaps limited wealth is a
blessing to the development of the ar-
chitectural decoration of the present.

Scientific development in materials
has undoubtedly influenced architectur-
al design and ornament throughout all
the periods of history. The necessity
of a great number of supporting piers
to carry the load of the roof in the
post and lintel system of the Egyptians
resulted in the numerous huge columns
and heavy walls. These surfaces pre-
sented the problem of Egyptian decore-
tion. Relief had to be given these sur-
faces. This same system of construction
was used by the Greeks, and with it the
people developed an exquisite structure
based on proportion, with ornament sup-
plementing and emphasizing the form.
The Romans discovered concrete and used
it in great arch and vaulted systems as
the structural members of their monu-
ments. This rough concrete was not a
pleasing finish so they used a marble
vener, which as the rule accentuated or defined the structural members which it clothed. Later the mastery of stone construction by the medievalists made possible the creation of a monumental, impressive style which was simple and direct in design.

Today we have steel and reinforced concrete, materials which will allow such greater spans with smaller members than those of other days. Also the designer is learning to create his ornament as a part of these systems of construction, eliminating the need of a veneer, and thereby producing a true, simple, and economic mode of ornamentation. Today we are confronted with a new problem; our structural members are smaller than before; our spans are greater; our walls are merely shells to protect from the weather, having no weight to carry. We must create ornament within our structural material. There will be no advancement in the development of architectural decoration until ornament is designed to meet these problems. This fact is beginning to be realized. More ornament is being created as a part of the structure than during the first years of the change toward a new manner; those years when the designers were grabbing at bits of detail rather than producing an ornament for the structure.

The use to which the structure will be subjected has a great influence upon its ornament. The doctrines of a church will influence its ornamentation. In some the feeling is that of faith in life, while in others it is the faith
of the future. In some the feeling of mystery and the cutting off of the every day world appears to be the aim; in others light, science, and the inclusion of the present world is the feeling. Certainly such problems will affect the ornament. But always the thought of a Supreme Being must be carried far to the worshippers as well as the doctrines of the church. These are gained partially with the aid of the architectural treatment of the church, whether a huge cathedral or a small chapel, for the surrounding material plays a part in the emotions and thoughts of people.

Commercial buildings are naturally of an entirely different nature. The treatment of the ornament should carry out the idea of industry. The structure must be simple, inviting, and suitable for the type of business to be carried on within the building. A manufacturing plant has entirely different requirements from a shop or office building. Each must be designed and ornamented for its purpose. Ornament which might be charming on a shop front would be completely out of place on a factory or on a structure where a great amount of wall surface might be desired. Also ornament which might be delightful on a one or two story structure would be absurd if placed at the higher levels of a skyscraper.

Perhaps the attitude of some of our contemporary architects is that they do not know what the solution with regard to the decorative problem might be so why worry about it. They might
have decided that there is enough to be studied with regard to proportion and mass; that their problem is complex enough by having to solve the question of mass and proportion to meet the present functional requirements; that they will leave to a future group of architects the study and solving of the problem of ornamentation.

These men definitely avoid the decorative issue. This might be a more logical and sensible attitude than that of those who deliberately place odd geometric designs of no particular reason or sense and of rather poor composition upon the facades of their buildings with no apparent regard as to position or suitability of the ornament.

This practice of disregarding ornament completely, though for the present perhaps resulting in a more intelligent, truthful, and sane solution of modern structural forms, certainly hinders the advancement of ornamental creative efforts. A forward development in contemporary design can not be expected till a sane, fundamentally correct effort is made to create a sane, truthful manner of ornament. Modern architecture will not long satisfy man, a sound use of ornament must be brought into the design.

A great amount of the so-called modern ornament consists of bands made up of geometric lines and forms which results usually in a cold, hard line which surely does not increase the beauty of the structure, but rather creates a hard-nosed, abruptness, and mechanical feeling which definitely hinders the charm of the design.
These methods of ornamentation portrays a compromise or unwillingness upon the part of the designer with regard to creative efforts. It clearly demonstrates that the designer is dissatisfied with the method of using ornament of historic origin upon a form created to meet present functional demands, but that he is either incapable or unwilling to strive for a clear, honest, meaningful manner of ornamentation. He is either contented to merely roughen the surface of the structure with poorly composed meaningless bands of geometric forms or to simply leave the structure plain. The former is perhaps of as great a hindrance, if not greater obstruction, to the development of a successful manner of contemporary ornament as the complete disregard of decoration. Both recognize the inescapability of successfully using ornamental bits of by-gone days upon present structure, but neither attempts a sound study of the problem which must be solved. This makeshift manner must be abandoned; advancement can not be accomplished by compromise.

Where the ornament is cast of the same material and at the same time as the casting of the structural forms of the building it must be of a form and design adaptable to such operation.

Ornament to be best adaptable to concrete must depend upon broad lines, good proportions, and simplicity for its effect rather than upon fine delicate detail.

Stone is a material that is adaptable to fine carving; a material that
is then brought into use already a solid and can be delicately carved in complex designs. Concrete when brought into use is a liquid which is poured into a form and its shape is thereby determined. These forms must be removed after the concrete has had time to set and to do so the contours and forms of the mould must not be too complex. Also in order for the material to equally and smoothly fill all of the form its design must be simple and rather broad.

It is certain that in concrete construction where the decoration is cast into the wall that the simpler the form the better the design so long as the ornament is well composed and precisely studied as to placement. A minimum amount of simple ornament well placed is the goal that should be the aim of all designers.

The form, manner, material, and structural problems of a building may change from generation to generation, but always the structure must be explained within itself.

As has been mentioned before, archeic ornament of a style is by no means perfect in its design or use; yet it is more likely to be truthful and appropriate than that of the later periods. It is experimenting and leading toward a fitting expression. It is moving forward, men are gaining knowledge and are striving toward an end; always eager to find where the ornament is of most assistance to the explanation and beautification of the form and proportion of the monument. Such is the period in
which we are living, in the formative period of a new style, which we are all eager to see equal those great styles that have come down to us from the past.

Whether modern designs accomplished this, time will decide, it is for us to develop through these years of experimentation the manner that we hope to have recognized by the future. Mistakes are being made, but much is being learned by those mistakes. There are some who are striving to be unique, extremely different; oddity seems to be their goal. This of course is the wrong route; we must travel the path of logic. We must study our residential housing problems and our aesthetic attitude, as well as the functional and engineering requirements. We are living in a far different age from those eminent architects and engineers of Antiquity and of the Middle Ages. So must our architects be of our age and not of the past. We live in the present, and we must be housed in monuments of the present.

To copy the past is impossible. We have steel and reinforced concrete in place of only brick and stone. We have our skyscrapers, our vast industrial plants, and our many new scientific developments to house. Our social and economic conditions are vastly different from those of the past. We are living in the twentieth century; we must create and express ourselves in the manner of the twentieth century, not in that heavy expression of bygone days.

Our position and outlook has changed,
and our architecture and ornament must meet this change. Romanesque, Gothic, Greek, and Egyptian ornament will not transfer successfully to this architecture of steel and reinforced concrete frames. The detail of these historic styles was a part of the design and often depended greatly upon reveals and wall thicknesses for their result, and this important attribute to its success can not be obtained when placed upon the present type of construction.

Architecture is, and always has been, for a purpose, and of the present. This too shall always be true of ornament. Ornament must be in the character of and organic to, the structural forms of the time in which it is created. Out of these circumstances a new manner is emerging, a manner clearer, cleaner, and more direct than that of the eighteenth and nineteenth centuries. Rich costume of the past is being abandoned, and architects are beginning to express their ideas more cleanly and with a growing degree of honesty and frankness. This increasing study toward logic and refinement is being accomplished, as in all historic styles, by experiment. Slowly architects are becoming accustomed to the new ideas and forms of this scientific age, and through a process of years of experimenting in which varieties of designs have been, and will be, presented and tested, we observe the gradual abandonment of historic ornament on present day structure. When this evolution is completed, and ornament is created logically
and rationally with regard to current engineering forms, when beauty is gained by
decorating the structure, rather than by constructing decoration, than this age is
to become a great era of architectural
design. From the old principles of
utility, and beauty there will emerge a
new style — Modern. 
Bibliography of Modern Buildings and Articles Appearing in Periodicals.

1925


1926


1927


An attempt at an organic architecture but becomes unpleasant because of lack of ornament.
Bennington Battle Monument design. J. Ph. Hiss, architect. Very plain simple direct design - practically no ornament - three slender slits near the top and two near the bottom - along lines of obelisk. p.92 v.22 American Architect.

1883


Two Stores in St. Paul. J. W. Stevens, architect. An attempt at a vertical feeling - simplicity but very crude in detail - is a beginning and is far in advance of the store buildings of the late 70's and early 80's. p.96 v.23 American Architect.


1899


Tomb for an Illustrious Architect
(design) Julius Harder. Architect. Very
simple, refined - influenced by the Greek -
nice study - interesting. P.12 v.26 Ameri-
can Architect.

Design St. John the Divine, New York.
Carrere and Hastings, architects. Working
with Renaissance forms and detail and at-
tempting to hold Gothic height - a vertical
feeling is gained with the Renaissance de-
tail but the effect is rather unpleasing.

Design St. John the Divine, New York.
T. P. Chandler, Jr., architect. Very un-
pleasing - Gothic detail in the dome very
forced and unsatisfactory - Facade towers
overbalanced by dome. p.164 v.26 American
Architect.

Design St. John the Divine, New York.
L. S. Buffington, architect. Complex -
poor plan - detail is rather well placed.

1899

Store in Boston, Wait and Gutter,
architects. An attempt at vertical feeling,
pрактически no detail. p.17 v.27 American
Architect.

Design St. John the Divine, New York.
E. G. Codman, architect. Romanesque de-
tail - an attempt at a new style - very
little ornament and that centralized -
romantic feeling - elevation appears much
heavier and more massive than is indicated
by the plan - section shows the influence

111.
of the Byzantine - Does forecast the later fine modernism of Goodhue. p.113 v.27 American Architect.


1891.

Tower for competition design St. Michael's Church, New York. R. H. Robertson, architect. Romanesque in character but tower shows a tendency toward simplicity and directness. p.117 v.31 American Architect.


mass with ornament centralized - design not of high quality but better than much of the office building type. p.33 v.33 American Architect.

Study for Fremont School Building. J. Parkinson, architect. Simple and direct very little detail and that centralized at the top of the tower and around main entrance. p.125 v.34 American Architect.


Hotel at Mesilla Park New Mexico. Seymour Davis, architect. Simple structurally sound facades - decoration emphasizing the balcony and entrances - detail simple and Spanish Renaissance in character. p.84 v.35 American Architect.

All Saints Church, Dorchester, Mass. Crew, Wentworth, and Goodhue, architects. Gothic influence in detail but simplified - solid mass and structurally sound - good design - ornament used to emphasize openings rather than just an overlay as before. p.108 v.37 American Architect.

East entrance to the Transportation Building World's Columbian Exhibition Chicago. Adler and Sullivan, architects. Overlay of ornament - gives exhibition character - sculptured panels give a hor-

Vr
irontal, blocky feeling below spring line of the arch - arch richly decorated. p.304 v.33 p.66 v.42 American Architect.

1933

St. Louis Architectural Club competition for a design for an Entrance to Eads Bridge, Oscar Enders, architect. Decoration centralized at base of verticals of tower and round archway - design marred by clock breaking up vertical feeling. p.118 v.33 American Architect.

Atlanta Architectural Club Competition 

Columbian Exhibition, Chicago. Peabody and Stearns, Mckinley Road and White, George B. Post, Charles B. Atwood, and S. S. Beman, architects. All classic in feeling - detail well placed - very nice monumental effect gained by this group - decoration of moldings and frieze simple (Peabody and Stearns) Horticulture Building (Jenny and Mundie architects) baroque renaissance feeling, wide frieze of figures above the windows seem to have pressure on the lower portion, detail not centralized, poor composition - Choral Building (Francis H. Whitehouse architect) Greek feeling, very simple, solid, moulds around openings and metaphors only decoration.

As a whole the buildings have a simple dignified refined character; the ornament being well placed and nicely studied. p.155 v.42 American Architect.
Public Library, Boston, Mass., Mead & White, architects. Renaissance
ornament emphasizes openings which are well
designed and placed — very simple and digni

Hotel St. Nicholas, St. Louis, Adler
and Sullivan, and Chas. K. Ramsey, archi
tects. Design not so good but again the or
nament is well used at the entrance; and
en balcony to emphasize a horizontal band
near the top. p.17 v.30 American Architect.

Wainwright Building — St. Louis, Louis
Sullivan, architect. Attempt at ornamenting
form. p.18 v.30 American Architect.

The Guaranty Building, Buffalo, Adler
and Sullivan, architects. An attempt at
vertical feeling but too much ornament hurts
the simplicity and structural value. p.19
v.33 American Architect.

Washington Safe Deposit Company, Wash
Glenn Brown, architect. Design No.1 — lower
portion nice — little detail emphasizes open-
ing — decorative effect gotten with materials —
structural value shown — long slits of windows
rather crude — but an effort at a new style —
creative.

Design No. 2 — not creative in the least.
p.20 v.35 American Architect.

U. S. Mint, Philadelphia. Wm. Martin Aiken
architect. Classic feeling — only decoration
in molding to emphasize openings - horizontal band between first and second floors and in cornice - simple and dignified p.60
v.35 American Architect.

Saint Stevens Church, Fall River, Mass., Gross, Wentworth and Goodhue, architects.
A simple solid form using Gothic detail. p.46
v.35 American Architect.

The Colonel Robert Gould Shaw Memorial, Boston, McKin, Head and White, architects.
Nicely studied ornament - well placed - Greek influence, p.93 v.57 American Architect.

Chamber of Commerce Building, Cleveland, Peabody and Stearns, Architects. Unpleasant combination of Greek and Renaissance. p.75
v.33 American Architect.

1898


St. Joseph Church, Corpus Christi, Texas, Armstrong and Fasco, architects. Adaptation of Spanish Renaissance - detail well studied and centralized around the entrance, p.76
v.59 American Architect.


1899


1900

as seen in St. Zeno at Verona. Exceptional return to a clean historic style. p.25 v.67
American Architect.

The Weinwright Memorial. St. Louis, Mo. Louis H. Sullivan, architect. Simple design - geometric ornament well placed. p.34 July 1900 v.9 Architectural Record.


1901

Modern Architecture in Italy. Mole Antonelliana - Turin. A structure in which the architect realizes the need of a new architecture because of new structural principles. p.337 v.10 Architectural Record.

1902

The New World and the New Art - Herbert Croly. p.185 v.12 Architectural Record.
L'Art Nouveau realizes the need for new decoration based on logic, harmony, and sentiment. Floral forms dominant.

1903

Additions to West Point. Cram, Goodhue & Ferguson, architects. Well composed masses of a
Gothic character - detail pleasingly placed, simple and direct. Ornament used to emphasize the outline and openings of the buildings. p.30 v.11, Architecture - p.463 v.14 Architectural Record.

1904


1905

The Devond, New York, N.Y. Yarole & Herder, architects

Examples of building design which has fortunately been abandoned - use of poorly designed, poorly placed classic ornament unfunctional, uninteresting, unbearable. No functional logical or harmonious character. p.30 v.11 Architecture.

Warehouse, Butler Bros., Jersey City, N. J. Jarvis Hunt, architect. Horizontal lines between windows carrying each floor in a unit joined by courses of recessed brick alternating with flush courses. Plain, crude yet more pleasing than casting of irrelevant detail on a solid form. p.53 v.11 Architecture.

Buildings for College of City of New York. Geo. B. Post, architect. Lingering feeling of
the romantic revival moment. Clashing contrast between ornament and structure - formal list in confusion of poorly composed detail - unpleasant result. p.108 v.12 Architecture p.166 v.21 Architectural Record.

Ecclesiastical Architecture, (Article, Illustration) Ralph A. Cram, architect. Creed of Gothicist
1. Proportion, composition, organic relation and development fundamental in all good architecture.
2. Archaeology isn't architecture.
3. Though Greek, Roman and Renaissance possesses many elements of beauty it is surpassed by medieval.
4. As of Anglo-Saxon 30th century culture cut off from classic by Christian relations. His designs well composed, and possess logical ornament of medieval character, but to me, in them he gives a study of archaeology which he conforms in his teachings. We do see logic though and feel his underlying feeling of a new architecture based upon the Gothic. p.184 v.14 Brickbuilder.


Residence of A. J. Hunser, Chicago, Ill. Frank Lloyd Wright, architect. Simple masses - overhanging roof - windows grouped into horizontal openings. p.84 v.16 Architectural Record.

City Hall of Copenhagen, Denmark. Martin Nyrop, architect. Facade design not particular-
by good - use of brick for decorative effect - centralized detail (article) p.383 v.16 Architectural Record.

1906

The Milan Exhibition. An attempt at a new architecture but the classic love is too great and the result is very unpleasant. Classic logic is lost behind a mass of detail which resembles that of the Art Nouveau. In attempting to break from classic tradition an illegible, unharmonious manner results. Form and structure is completely lost. p.383 v.20 Architectural Record.

Design Wisconsin State Capitol - Madison. Geo. B. Post, architect. Just a copy of classic detail upon a modern structure, "Capitols must be classic because they have always been" - an example of the result of public sentiment, a dull uninteresting, trite design. p.164 v.14 Architecture - p.195 v.4 Architectural Record.


1907

The West Street Building, New York. Cass Gilbert, architect. Still an overlay of ornament but it is emphasized at the top of the building and does not break up the mass and solidness of the structure - slim tall columns between the windows accentuate the height of the building - effect gained is not displeasing. p.102 v.22 Architectural Record - p.84 v.15 Architecture.

The Philps Model Tenements, New York. C. Astorbury, architect. Full and poorly composed though simpler and cleaner cut than most of the
tenement houses. Attempt at pleasantness in design at low cost. Inner court of more interest than facade. Rather pleasant in its simplicity and directness. p.86 v.16 Architecture.


Some work by Geo. W. Mayer - The University Building - Residence of Mr. John Paxon - Stable of Mr. James A. Paton. Simple wall surfaces - centralization of detail - detail somewhat conventionalized. p.439 v.81 Architectural Record.

1908


Buildings of University of California, Berkeley, Cal. J. C. Howard, architect. Simplification and directness of classic design - leading toward a new classicism - not particularly well designed. p.367 v.25 Architectural Record.
The Larkin Office Building, Buffalo, New York. Frank Lloyd Wright, architect. Simplicity and directness of Wright well illustrated - detail limited to the caps of the vertical shafts separating windows - structure evident with little detail logically placed. p.311 v.23 Architectural Record.

In the Cause of Architecture (Articles) Frank Lloyd Wright. "Simplicity and repose are qualities that measure the true value of any work of art" - Simplicity results when all that is meaningless has been eliminated. Wright's ideas which are later to be written into books are here simply put forth. p.156 v.23 Architectural Record.

Residences designed by Wright. Simple and direct - detail centralized about openings - wall surfaces treated often with an all-over pattern - openings well composed, well placed - ornament simple. p.174 v.23 Architectural Record.

Unity Temple, Oak Park, Ill. Frank Lloyd Wright architect. Simple - direct masses - ornament used sparingly and carefully being centralized at caps of vertical members. p.212 v.23 Architectural Record.


National Farmer's Bank, Owatonna, Minn., Louis Sullivan, architect. Simplified use of same form as Transportation Building - cr-
nament well placed but seems apart from structure, does not seem unified with building. p.349 v.26 p.55 v.28 Architectural Record.

Municipal Office Building, New York. McKim, Mead and White architects. Delightfully designed classic detail, but misused on an office building - Tower and Temple attics unfitting to an office building while classic columns are merely added weight having no structural value in themselves. Non-structural members appearing as structural an opposite feeling to true classic architecture. p.54 v.19; p.153 v.27 Architecture

United States Post Office, New York. McKim, Mead & White, architects. Simplified classic - not creative, but out of such the new classicism is to grow. Columns of facade purely decorative. p.54 v.19 Architecture

1909


Some Impressions of Modern German Architecture (Article and Illustrations) A.H.Grayner architect. An attempt at functional architecture great break from that ornate architecture of the German Renaissance, attempt at study of mass and openings - ornament supplementary to composition. p.197 v.28 Architectural Record.

1910

The Kinko Apartments, Brooklyn, Haas & MacNeill architects. Ornamental effect gained
by brickwork and little stone - step
toward directness though far from being a
satisfactory design. p.16 v.31 Architecture.

Museum of Fine Arts, Boston, Mass.
Guy Lowell, architect. Clumsy handling
of classic detail - unpleasant proportions
poor fenestration, though very simple and
direct in design, p.16 v.31 Architecture.

Alwyn Court, New York, N.Y. Hardy
and Short, architects. Unpleasant combi-
nation of Gothic and Renaissance detail
and used in an impossible manner. Elaborate
and confusing; not functional, p.33 v.31
Architecture.

1911

Temple of the Scottish Rite, Washington,
D.C. John R. Pope, architect. Delightful
Greek classic feeling - influenced by Tomb
at Hericarnassus - Feeling of base and
entrance feature very pleasant and direct.
A delightful step toward a new classicism.
. p.441 v.30 Architectural Record. p.1 v.4
Architectural Review.

Allegheny County Soldier’s Memorial,
Pittsburgh, Pa., Palmer & Hornbostel, archi-
teects. Same “Parti” as Pope’s Temple of
Scottish Rite but not nearly so pleasing -
simple, and clean cut as it. Lacks the
charm and dignity of Pope’s design - con-
fused and heavy because of detail. p.205
v.30 Architectural Record p.535 v.34 Archi-
etectural Review.

United States Postoffice and Court
House, Denver, Colo. Tracy, Smarttuck,
and Litchfield, architects. Greek in-
fluence - detail emphasizes openings -
panels near cornice on end walls sculptured.
p.337 v.39 Architectural Record.
Designs for Robert Fulton Memorial, New York, N.Y. Winning design of Harald Moserigle. Simple, direct, colonnade treatment stopped at each end by classic temples. Other design more decorated but none as much as the classic designs of a few years prior to this. There is seen in these designs the growing tendency toward simplicity, directness, and logic. p.1 Architectural Review.

Design for Museum of Fine Arts, Minn. McKim, Mead and White, architects. Simplified use of classic. Not the richly ornamented classic of their early works. This more quiet and direct. p.55 v.1 Architectural Review.

The People's Saving Bank, Cedar Rapids, Iowa, Louis Sullivan, architect. Not as pleasing as some of Sullivan's other work - lack of ornament - unpleasing proportion. p.45 v.1 Architectural Review.


Building for the Locomotive Company of America, New York. Petitt and Kirby, architects. Much brick ornament supple-
menting structure - cartouches unnecessary and detract from directness - lacks sufficient base. p.273 v.31 Architectural Record.

Some Chicago Buildings, Designed by Holabird and Roche. Use of historic de-
tail - some are attempt at a new manner but as a rule are only a hanging on of
bits of detail - lower floors unsatis-
factory ornament weakens rather than streng-
thening. p.315 v.31 Architectural Record.

Church in the Steinhof - Project for Municipal Museum - Project for Library in
Vienna. Otto Wagner, architect. A func-
tional architecture - ornament used to
explain and emphasize structure - flat
ornament, except for free standing columns
and figures of church entrance; these
purely ornamental, no apparent load above.
A cleanliness and directness of form evi-
dent. p.425 v.31 Architectural Record.

The New Ascian Hall, New York. N.Y.
Warren and Wetmore, architects. Lower
portion simple and direct but upper portion
has confused and illogical use of classic de-
tail. p.529 v.32 Architectural Record.

Lincoln Memorial, Washington, D.C.
Henry Bacon, architect. Archaeology not
architecture, but delightful in its sim-
plcity and directness. p.32 v.32 Archi-
tecture p.470 v.33 Architectural Record.
Design for the Reason of Progress.  
D. Despradel, architect.  Fantastic design of enormous scale - complicated at base grows to simplicity toward summit mixture of ornamental elements, no sense of clarity.  p.185 v.34 Architectural Record.

Style in American Architecture  
(Article) Ralph A. Crom, architect.  Two kinds of Gothic steel frame "infant terrible" of architecture.  When we realize it as a new force not a substitute we shall do well.  Seccissionist with his enidity to archaeological forms.  Three kinds of classic - pure - Beaux Arts - Colonial.  Must get our start from medievalism.  p.228 v.34 Architectural Record.

Design for Pan American Building,  
Washington, D. C.  Kelsey & Cret, architects.  An early example of Cret's design.  Confusion and illogical ornamentation of Beaux Art - not clear, explanation of structure that characterizes his later works.  Battle between horizontal and vertical feeling.  Ornament not coordinate with form.  p.385 v.34 Architectural Record.

Towers of Manhattan, (Article of Illustrations) Woolworth Building,  
Cass Gilbert, architect.
Singer Building, Ernest Flagg, architect
Metropolitan Life Tower, M. Lehr & Sons, architect
Bankers Trust Building, Trombridge & Livingston, architects.

Illogical, unfunctional use of historic ornament - applied ornament rather than coherent structural appearing but of no structural value resulting in an appearance of weakness and confusion. p.99 v.35 Architectural Record.

The Studio Home of Frank Lloyd Wright - "Taliesin", Springreen, Wis. Low well composed mass - simple form - functional architecture - interest in masses and proportion. p.45 v.35 Architectural Record.

Administration Building, Rice Institute, Houston, Texas. Crew, Goodhue and Ferguson, architects. The feeling of medieval Italy, confused with Moton - Ornament explains structure - end masses of entrance facade delightful in their solidness and functional directness - logias and cloisters functional - a harmonious and sentimental composition. The culture of the past reflected in architecture of the present. p.10 v. 2 Architectural Review, p.73 v.30 Architectural Record.


Schauspielhaus, Stuttgart, Germany. Ritel & Steigleder, architects. Functional architecture - ornament adding interest to necessary form. p.269 v.3 Architectural Review.


Design New York County Court House. Guy Lowell, architect. Classic - retention at upper levels of non-structural columns for decorative purposes. However as a whole it tends toward simplifying forms. p.91 v.87 Architecture, p.1 v.36 Architectural Record.

The Schubert and Booth Theatres, New York. Henry Herts, architect. Both a simplification of the over ornate theatre facades so common just prior to these but still lacking of dignity and directness of design. Ornament is however more attached appearing - ornament - logical though inadequate in design. p.260 v.27 Architecture.


The Woolworth Building, New York. Cass Gilbert, architect. Rather direct design - better than the average tall office building - ornament on the upper stories simply hung on but does not
necessarily detract from the structural parts of the building. p.97 v.33 Architectural Record.

The Cathedral of Incarnation, Baltimore, Md. Gram, Goodhue, and Ferguson, architects. Structure counts - detail well placed - a good deal of sculptural decoration on the west facade but it does not detract from the structural qualities of the facade, rather emphasizes the structural members - simple direct decoration well studied seems to be the keynote of the work. p.477 v.53 Architectural Record.

1914

Recitation Building, Boston College, Newton, Mass. Maginnis & Walsh, architects. Usual modernized Gothic - simpler than the Medieval influenced work of a few years previous. Tower out of scale with rest of building. p.20 v.105 et.1 American Architect.

Propylæa, Munich. Modernized Greek - towers unpleasant. p.27 v.106 et.1 American Architect.


Panama-Pacific Exposition, San Francisco. Poorly composed classic feeling - in some instances an attempt to create a modern feeling - as a whole unsuccessful. Buildings awkward and confused, however it is striking in its color. p. 440 v. 37 Architectural Record, p. 95 v. 106 pt.1 American Architect.


Is American Architecture a live art? (Article, Illustration) F. R. Wallis. Illustrations comparing American Factory buildings with European show the inferior quality of the American. The American except for few examples such as Larkin Soap Company building, and Butler Bros. Warehouse, are mere crates. The European such as Prof. Behren's design for a Turbine factory in Berlin, and Prof. Lasson's and Max Kühne's Lace Curtain Bleachery in Germany, or the Factory of Henry Hope in Birmingham, England, which are typical of Europe have a truthful, functional, simple design of merit. A study of mass and proportion. Why should a factory not be as carefully designed as a theatre or an office building? "I do not ask for a factory that looks like the Parthenon or Notre Dame. If it did it would not be a good architectural, expression of the Factory problem. But why can't it be well designed, with due consideration for form and color, and still be a Factory, look like a factory, and work like a factory?" p.81 v.3 Architectural Review.


Proposed new Opera House, Berlin Germany. Martin Dulfer, architect. A real modern feeling throughout except on portico which is unfortunate - sculptural ornament well designed and well placed. p.491 v.36 Architectural Record.

The Architecture of the Modern German Department Store, by Wm. L. Moell. Difference from problems of past characterizes difference from modern commercial buildings.
German architecture might be expected to be logical as achievements of this nation are in science rather than in art.

In America, all space is utilized - entrance features of marquises. Show windows so exaggerated as to lose columns - building appears to be resting on glass.

Emphasis upon parts of varying importance omitted - left to the guidance of the floor walker - distinction of design that attracts very good instinct is generally passed over as unnecessary expense.

Germany: The large and attractive space is not sacrificed but serves as a guide, and brings about free and rapid movement of customers.

The facades of classical antiquity started with a strong vertical movement at the base, and by a subtle arrangement of details came to rest above on horizontal lines; Gothic architecture starts with moderate movement at the base and accelerates constantly to a climax; and many facades of the Renaissance, through stories of graded and alternated height and interest, follow this latter scheme. Some such rhythmical scheme must underlie the arrangement of the vertical order of every architectural design and detail.

The "Agrippinhus", Cologne, Geo. Falck, architect. Such serving as the building has in modeled in a manner somewhat more than merely vigorous.

Tiets Store in Dusseldorf. Windows reduced to slits and apertures darkened to get an effect of verticality. The garland feature of this cornice is typical of the introduction of ornament without harmonizing features on broad, flat, and frequently rough surfaces. Show architects held by tradition. Why do they refuse to see that the new creation already exists when their plan and
construction are complete and also closer the new grouping of forms in a badly fitting old garments. The best parts of these store buildings are those isolated sections where the piling of one story on another, supported by equal piers, equally shaped, is frankly recognized. In the detail, the designers have caught the meaning of traditional forms. This is shown by their accurate placing and spacing of ornament, especially sculpture. p.237 v.23 Brickbuilder

1918

Architecture of Burnham & Root, Burnham and Company, and Graham, Burnham & Company. Use of classic detail on tall buildings as a rule does not functionally depict steel frames, eighty maiden Lane Building, New York neoclassical and harmonious that the majority of their designs. Ornament as the rule applied rather than resultant. p.33 v.30 Architectural Record.

Building for Joseph Back Printing Company, Detroit Albert Kahn, archt. Factory for A. Schneider's Son, Inc., Brooklyn Howard Chapin archt. p.121 v.187 American Archt. Building for C. F. Mueller Company, Jersey City. E. E. Choloden & Son, archt. p.137 v.137 American Archt. Building for Florence Manufacturing Company, Florence, Mass., E. M. Green, archt. p.144 v.137 American Archt. Show a more careful bit of design of the factory building but that "kick" and finish evident in European design is lacking. That bit of well placed ornament which would greatly all to their interest is omitted. Function is clearly evident but left nude. The useless applied ornament is omitted but a certain bit of interest is needed. The stop has been made to clear function rather well composed, but they appear
bars and unfinished.


Reid Murdoch & Co. Chicago, Ill. George C. Nimmer archt. Franklin Building. Chicago, Ill. Sears, Roebuck & Co. Seattle, Wash. These show clearly a new trend in architecture - very little ornament, and that is grouped around the openings and is usually of brick, tile, or terra cotta - work is heavy and crude but is a step toward a new style. - geometric pattern in the ornament. p.232 v.38 architectural Record

1916

The Modern Manufacturing Building by John F. Elber. Materials lend themselves readily to certain types of decorative treatment with small additional expense. Decorative effect gained by stressing the structural elements of the building. A use of brickwork and tile influenced by historic styles but working towards something new. p.331 v.25 Architectural Forum.

Chamber of commerce building, Pittsburgh, Pa. R. H. Lee and J. F. Piper architects. a modern style - crude but not following a historic style - lower portion not as good as upper portion - tile detail at the top rather well placed. p.72 v.109 pt.1 American Architect.

The modern industrial building (article and illustrations) buildings crude and lack architectural refinements but they are a break away from all historic styles - a
tendency to use only structural motives - no overlay of ornament - a chance that our developed modern style developed from these crude structures - these have a minimum of ornament but not particularly well studied. p.177 v.1.10 American Architect.


Art and Geometry (Article & Illustrations)
Claude Bragdon "The art of this time is clearing the way of old aesthetic rubbish, so that the god in man may fulfill itself in some new and beautiful way." "Ornament is nothing but the rhythmical division and subdivision of space." "Projections of the Platonic solids one plane divide that plane space rhythmically." Bragdon's design using geometric pattern are similar to that of Gothic tracery, not that absurd scratching of so much contemporary ornament. His designs are more than mere angular and circular lines used to roughen the surface, his combine the surface into a unit, not confuse the surface. p.39 v.4 Architectural Review. p.35 v.4 Architectural Review.

Printing House of R. R. Donnelley & Sons Company, Chicago Howard Shaw architect. A step forward in manufacturing plant architecture - study of mass and form with detail emphasizing important factors, giving interesting relief to zero form. p.135 v.4 Architectural Review.
The Modern Industrial Building, (Article and Illustrations) Edward H. Putnam. General improvement apparent in design of industrial buildings, brought about by improved structural conditions, and realization of improved conditions permit and attract more business architecture of such buildings taking form. p.177 v.109 pt.1 American Architect.

1917


Buck Terminal Building, New York, Helms & Corbett architect. An attempt at a functional tall building—ornament somewhat more pleasing than the usual decoration of tall buildings at this time. Forecasts their later work—seems more a part of building though of historic design—Romanticist tendency. p.281 v.113 American Architect p.12 v.36 Architecture.


Illustrations of Modern Industrial Buildings, show tendencies along right track but a satisfying solution not yet reached. p.112-134 v.111 American Architect.

XCV
Some essentials in the construction of an industrial building, (article and illustrations) crude unrefined architecture but some of it shows the beginning of a new style. p.353 v.112 American Architect

Vocational school for boys, Newark, N. J. Louis Scantag architect. A new style - towers rather interesting - one long slim window bordered by a tile pattern with a tile pattern as a decorative motive at the top. p.353 v.112 American Architect

1918

The Detroit News Building, Detroit A. Kahn & Willey architects. An attempt at a neoclassicism but failing to solve the problem. Functional but lacking in refinement. p. 15 v.23 Architectural Forum


Metropolitan bank building, Minneapolis, Minn. Hewitt and Brown architects. Not a brilliant design but it does have the structural portions of the building well defined and there is an attempt at a new ornament - ornament geometrical in feeling. p. 48 v. 114 American Architect.

Bank for the Peoples Savings and Loan Assn., Sidney, Ohio, Louis Sullivan architect. solid - geometric band or ornament around the top - poor choice of floral ornament in spots but the building as a whole is a step toward a new style. entrance not in very good scale. - but the ideal of a low arch with tile decoration is rather interesting. The interior also has a new falling. p.490 v.114 American Architect.

2019

New York’s Arch of Victory, Thomas Hastings architect. A wonderful opportunity for a creative design of a new architecture passed up because of tradition. "A triumph must be Roman." Instead of erecting a monument characteristic of America, a poorly proportioned, overworked Roman arch was erected. Being temporary it’s design is all the more absurd. p.612 v.115 American Architecture. p.37 v.39 Architecture. p.130 v.116 American Architecture.

Union Passenger Station, Richmond, Va., John A. Pope architect. Simplified classicism - not nearly as refined as the Scottish Rite Temple - does have a sturdy quality however and aims toward directness. p.42 v.116 American Architecture.
The Classic Spirit and Tradition, (article) True classicism demands simplicity in design. Sculpture must be handled with a masterful knowledge of its relation to its position on the form. p. 447 v. 114 American Architecture.


Warehouse Building for Washington University, St. Louis Fassn & Young, architect. Functional showing post and bridle type of structure - arches at top of each bay injure the design. Little ornament at entrance - logical architecture. p. 170 v. 115 American Architecture.

The Arch of Democracy, Brooklyn, N. Y., Helmae & Corlett architect. Same opportunity missed as in New York's arch of Victory - copy of past. p. 120 v. 115 American Architecture.

Cold storage plant built by the central manufacturing district for the White City Cold Storage Co., Chicago. D. Scott Joy architect. Use of plain brick surface with brick pilasters with a structural feature at the top. p.32 v.48 Architectural Record.


1920

The Nebraska State Capitol - Lincoln. Bertram Goodhue architect. A distinct break from the recognized trite idea of a capital building - others in this competition were of the old classic design. Here is a square plan built about a central tower. The wall surface is plain with delightfully designed and placed ornament, always in low relief, including what pilaster treatment there was, explaining and emphasizing the important points and structure. The well composed tower has a charming vertical feeling, but not ornamented with Gothic detail. Here the elements of the Gothic is seen but the design is based upon logic and harmony, thereby attaining the lines and impressiveness of the Romanticist in a clean, true, manner. The ornament in all cases is meaningful, logical, functional. Here is a new architecture based again on the fundamental principles of form and function - study of mass and ornament relative to each other. p.31 v.11 Architectural Review. p.73 v.48 Architectural Record. p.73 v.118; p.383 v.131 American Architect.


Series of War Memorial designs including:
proposed Riverside Memorial, New York, N. Y.
Proposed Memorial Festival Hall, Seattle.
Proposed National Victory Memorial Building, Washington. All true to tradition of a classic memorial pass up opportunity of an architecture depicting vigor, forwardness, and, individualism of America for sentiment of classic memorials. p.39 v.47 Architectural Record.

1931

Design for proposed convocation and office building, New York. Bertram Goodhue architect. Not as logical in lower portion as the Nebraska State Capitol but becomes more functional and clear as it rises, then richly ornamented at top. - Entrance feature too light for apparent weight above. p.105 v.12 Architectural Review.

Architectural Expression in Concrete by Frank J. Helalski p.11 v.34 January 1931.
Constantly widening field in architecture of industrial building. Opportunity for new forms, little precedent in concrete. Most buildings ever decorated. Simplicity should be the watchword. Proportion should get thought to have discernible buildings. The architectural treatment best adapted to reinforced concrete is that which depends upon broad lines and proportions rather than upon fine detail. p. 111

New York's New Architecture by Aymar Embury II. Exterior treatment. Gothic most adaptable of historic styles; Gothic too expensive. Several methods tried by architects: 1. The superposition of orders as in case of the St. Paul building and the American Telephone and Telegraph building--completely unsatisfactory even when orders themselves are well proportional as in the latter. 2. Attempt to include within a single order several stories of windows, with large masonry openings, the floors and partitions being cared for by metal sash, and transoms within the masonry openings--also unsatisfactory with alterations by McKim, Mead, and White on the New York Customs House as an example. 3. The most common treatment of our later buildings has been to indicate the classic character of the building by orders applied at the base and less often at the crown with a plain shaft pierced with undecorated windows. This is in a way begging the question, because the order is used purely as an ornamental appendage. Ask the question whether our tall buildings do not appear as one building...
set upon another rather than one building
decreasing in size as they mont. Seems
that none feel this. The nearest to the
ideal, perhaps, is the Cunard building and
backside building. At least there is a
suit of design apparent from the base to
the summit. Silhouette fairly good.

Another difficulty is the amount of glass
required at the base for show windows.
Elimination of the overhanging cornice.
p.119 v.35 Architectural Forum.

Design for Scottish Rite Cathedral,
San Antonio N. M. Greene Co., architects.
Simplification of classic - logical detail
interesting mass p.414 v.126 American
Architect.

Design for Gotham National Bank, New
York: Corcoran & Stockler architects.
Tending toward clarification of the
romantic tendency - ornament becoming or-

1932

Public Schools, "Fundamentals in
present day education must guide the
development of the new school plans." These
illustrations show lack of creative effort
on this type of building. Classical design
underscored, uninteresting, and
repetition of what has been done over and
over. Poor studies of mass composition
ornament ill chosen or poorly placed,
usually both. p.45 v.37 Architectural
Forum.

The Condition of Modern Architecture,
(article) L. E. Beareaux. "Our architecture,
in general, corresponds to the Roman idea.
It is a shell or envelop over the structural
form beneath." "Just as the Romans developed from the Greek forms a style of their own, appropriate to the expression of the grandeur and power of their political system, so are we developing from previous styles an expression of style - or a multiplicity of them - which is the symbol of the grandeur and success of our business system." "Ornament should enhance rather than detract from the structural or functional beauty." p.39 v.48 Architecture.


1923

Tribune Tower Competition, Chicago. To me, second prize design is more logical and functional then the winner - appears weak at base. Goodhue's design appears pasteboardy not as solid and functional as his Nebraska State Capitol. Rest of designs have tendency of the earlier office buildings, historic ornament applied rather than incorporated. To no little extent this is evident in the winning design. p.13 v.47 Architecture.

Tribune Tower Competition (Criticism) Louis Sullivan. Design of Eliel Saarinen in Sullivan's opinion superior to the winning...
design of Rosella & Hood. Narrowness on
part of jury not to give prize to a
foreign. Chance at accepting a creative
bit of architecture passed up for sentiment.

Concerning the Imperial Hotel, Tokyo,
Japan (Article & Illustrations) Frank Lloyd
Wright architect. Article by Louis Sullivan.
"The old idea is dying because it does not
recognize the heart as a motive power."
"This great work is the masterpiece of Frank
Lloyd Wright, a great free spirit, master of
ideas." "These ideas are new ideas remembe ring
the function and directness of the master-
pieces of the past, not old ideas forced upon
new form. This structure contains the feeling,
and richness of old Japan but it is above
all else a new architecture. The idea is new,
new structural forms are recognized, new
ornament fitting to the new forms is created.
The ornament though rich, gay, and at times
elaborate never fails to take into account
the structural form which it decorates. It
is organic - ornament beautifying modern
engineering. p.333 v.33 Architectural Record.

Crescent Theatre, Hollywood, Bayer &
Rieter architects. Picturesque but not
advancing to architectural development.
Simple forms gained not confused by the use
of Egyptian detail. p.153 v.153 American
Architect.

Shelton Hotel, New York A. L. Harmon
architect. Tending toward organic medievalism
entrance arcade out of character with rest
of design. p.183 v.183 American Architecture
p.1 v.33 Architectural Record.

Boiler Works, Queensbury, Flint, England
H. B. Cresswell architect. Simple and solid
which one might expect of a factory. Simple
sion in your categorical analysis and on some factors of climate and geography with our climate relative to structure. Probably, however, the influence of the weather should be considered in the analysis of this finding.

In a similar way, begin to show the individual families included in this study. Applying data of 20 years' duration have been used in the construction of what might be called the pattern of a particular family's weather; considering the structural aspects of climate, geographical factors, and other influences on the family's history. In this way the family is traced for a period of 10 years.
one of Egypt in its horizontal, but it is
new Dutch. Brilliant beautiful color effects
in door and window openings. Plain simple
wall surfaces with openings counting for
decorative effect—also those horizontal or
sometimes vertical lines of colored or set
back brick. Early with various pitched
tile roofs, p.171 v.38 Architectural Forum.

Dura Building in a Dutch Housing
Community. According to w. H. Sudden,
architecture is the art of proportion—nearly
designed masses—tried to build in a simple
and clear way making use of the natural means
of architecture, to get harmony in contrasted
surfacing of the masses. Roofs that now
offered a graceful and subtly handled out-
line. Corners softened in various ways—
one the use of a sort of dentil treatment
secured by omitting a half brick from each
alternate face of the two walls,—another the
use of oblique faces cut from bricks—another
such as used in the chimney of the lighthouse
at Doverso where the use of flat rectangles
marching as the top is reached.

These Dutch buildings have grown, as
all true architecture must, out of the lives
of the people.—Good architecture of any age
is the result of continuity of tradition
modified by the absorption of new life.


Industrial Architecture in Concrete by
Cass Gilbert. "It may be taken as an axiom
in concrete construction that the simpler
the form the better the design." Concrete
not a plastic material no more than cast iron
and less so than terra cotta. In Roman and
Byzantine work the concrete was the nature
of their structural design. Economy important
in the design—form dominates the design.

My not make simplicity the keynote and wel-
come it as a help and not an obstacle to
good design. Why attempt to adorn this simplicity with trinkets and patterns of real bits of colored tiles or panels of bricks, or fictitious cortiles, cornices, capitals or other details called from traditional architecture constructed of other materials. The logic forbids such intrusions. Something very fine in a great gray mass of building, all one color, all one tone, yet modified by the sunlight or shadow to pearly gray of wonderful delicacy. It is the big simplicity that counts. Example—United States Army Base at Brooklyn. Concrete invites study; it is an individual as stone, steel, or wood, and a new architecture may result. Should resist the temptation to make the walls as thin as possible—resist to temptation to get all of the theoretical strength of the material. A building should look strong.

p.35 v.39 Architectural Forum.

1924

Church of Notre Dame at Le Raincy, France
A. & C. Forest architect. Modern—structure
exaggerated geometric pattern grilles in rectangluar windows—design dead, hard and of
unpleasant proportions. A new architecture
but surely not one of lasting merit. Lacks
dignity and emotional quality of the church.
p.37 v.39 Architectural Record.

Architecture at the British Empire
exhibition, Bombay, India. Simple form
construction—ornament limited to simple
shapes—mass and proportion important.
Lacking of explanatory ornament—lacking in
its simplicity—a New architecture of
generic construction. p.38 v.41 Architectural
Forum.
point revert to tradition. p.93-137 v.41 Architectural Forum.


The Building of the National Academy of Sciences and National Research Council - Washington, Bertram Goodhue architect. A modern architecture fitting perfectly in classic Washington, Functional architecture - refined moldings and simple ornament centered at entrance - window openings well studied with the floor put into a bay, structural line of beams ornamented in bays by sculptural panel. Goodhue understands sculpture as the true architectural ornament. p.329 v.49 Architecture.

1925

Louis Sullivan, (Articles and Illustrations)

Flake Niswail, "Not since the genesis of Gothic construction had there been a development like that of the steel frame building, the Skyscraper, to which he was the forer to give artistic form. " "Sullivan felt that the new form of engineering was revolutionary demanding an equally revolutionary architectural mode. That masonry construction, in so far as tall buildings were concerned, was a thing of the past, to be forgotten, that the mind might be free to face and solve new problems in new functional forms. That the old idea of superimposition must give way
before the sense of vertical continuity." Throughout his work is evident the struggle for ornament expressive of the steel frame with the power of historic form unintentionally appearing. Never quite able to solve the problem he points the way to a new architecture. p.238 v.9 Architectural Record.


The International Exposition of Modern Industrial and Decorative Art in Paris (Article & Illustrations) E. V. Paris. The treatment apparent dates back to 1885 with the early efforts of L'art Nouveau" based upon the stylization of a very simple flora. It was a short lived style. In these buildings the curves have all disappeared and the formula consists of straight lines and sharp angles. That ornament which is used is of sharp lines, odd design-in an attempt toward simplicity, economy results because of sharpness and each of pleasing form and ornament. Mr. Paris well marks the movement with the phrase "The dogs bark but the caravel goes on." This novelty in a protest to copy architecture but it is far from a solution. p.365 v.43 Architectural Record, p.101 v.153 American Architect.

What the Public wants in the Picture Theater p.381 v.48 June 1925 p.381. The decorative effects will be of a neutral character and free from ornamental proportions.
or design. p.361 v.43 Architectural Forum.

'Present Tendencies' in the Design of Theater Facades, by René Yernaud. p.365 v.43 June 1936. At this time no great achievements. The modern theater in Hollywood is a step forward, although it is difficult to reconcile a sense of architectural expression with the style of ancient Greece. General run leaving in refinement. The modern commercial problem is to beguile the public with pleasurable expectation by facade facades that are at once exciting and inviting, yet free from garishness and cheap exhaustion. Best opportunity afforded the entrance of the individual theater building, then when the theater is incorporated in a tall office building. Generally the effort has been to punch a hole in the structure, stick around a few signs and hope that the public imagines the rest. p.365 v.43 Architectural Forum.

America's National Architecture, (article) Alfred C. Bossom. Sees the carrying on of Mayan architecture as our solution. Points out that their structures recognized the importance of silhouette, color, and detail; that they used the vertical as the principal axis of the design of their temples which rose hundreds of feet in the air. To Bossom these were the closest background for our tall buildings. p.77 v.128 American Architect.

Architecture of Hans Poelzig, Hans Poelzig. "I am endeavoring, on the basis of present day building methods, to arrive
at rhythmically musical expression and form, without eagerly seeking to produce new effects somehow, nor yet studiously avoiding anything that looks like a reminiscence of a so-called tradition." "The iron and concrete structures are the skeletons, and nothing but the skeletons, of the buildings, the warmth of the flesh and the outer and inner skins must be furnished by some other materials, and the stylistic foundations of the latter - next to the rhythm of the skeleton - of course determine the character of the exterior architecture. The Exhibition Building, Boston; and the design for the Festspielhaus, Salzburg; show the covering of the frame with a flesh material. Ornament is absent but they are a new architecture recognizing form, function, and logic.

Administration Buildings for Industrial Plants, Peter Behrens. A new architecture - proportion and expression of form of highest importance - no inorganic historic ornament - little ornament used but that functional, new to meet the demands of the new architecture. p.167 v.123 American Architect.


The Problem of the Pediment by Nathaniel Price. The pediment is truly a problem.
It is a mistake to allow distinctly architectural elements to intrude upon the space, restricted enough at best, in which the sculptor is to work. Many otherwise very good modern pediments have been complicated by this encroachment.

Professor Gardner of Oxford says "The composition of a pediment is as exactly regulated as that of a sonnet or a Spenserian stanza; the artist has liberty only in certain directions, and must not violate the laws of rhythm." p.1 v.43 Architectural Forum.

The Chicago Tribune Tower seems to be more of a boost for Howells and Hood than a truthful, critical article. Does not agree with the ideas of Irving K. Pond.

Mr. Howells and Mr. Hood say that its is not a tower or top placed on a building; it is all one building. This to me is indeed true enough but I believe that the top does not truly express the steel frame but is rather the result of Howells. Howells and Hood's temptation to incorporate the detail of a style into a historic style to modern steel construction and the result is not all together satisfactory. p.185 v.43 Architectural Forum.


1926

Modernism in Architecture (article and illustrations) Leon V. Solon. "The ornamental development of the new manner will undoubtedly progress in an unconventional but strictly
logical manner; logic in so essential a part of the argument which proceeds precise calculation in their structural design, that it is mainly responsible for the elimination of symbolic significance." "In the modernist manner we detect a tendency to regard a major structural area as the unit of space to be decorated." "With towering masses depending on ornamental scale adjusted to large areas and long range effectiveness, high relief as the formula for visibility cannot be resorted to, because of its disadventages as reaction upon the dominant characteristic sought in structural mass." His designs do not solve the ornamental problem - they are harsh, full of sharp angles and spotty. Solon recognizes the need of new ornament but fails to solve the problem. p.193 v.60 Architectural Record.


The Federal Reserve Bank, St. Louis, Sears, Russell & Cromwell architects. Modern - loss of refinement - disguises structural system to appear as a masonry building. p.285 v.60 Architectural Record.


Ornament from Magic Square, Claude Bragdon. "Roughly speaking all ornament
in either frankly geometric or oase floral
on a geometric foundation." Breedon holds
that if the dictum, "Beauty is truth,
truth beauty," is sound that truth in
mathematics and geometric ornament will
satisfy beauty. p.307 v.60 architectural
Record.

Child's Buihding, New York. W. Van
Alen architect. Misses modern and
historic - no architecture, just pro-
tection from the weather. p. 35 v.59
architectural Record.

The Evening Post Building, New York
H. Trumbauer, architect. One era ichecked
on another, poor ornament. p.22 v.130
American Architect.

The Farmers Loan and Trust Company
Building, New York Starrett & Van Vleck
architect. Away from the Post but not a
new architecture. Inorganic arches on
lower floors, boxlike above. p.22 v.130
American Architect.

Losqui - Centennial Exhibition,
Modern architecture of a character -
interesting ornament - slender columns,
plain wall surface with little wall used
ornament - buildings give feeling of a gay,
happy sort. There is no illusion either in
form or ornament of lasting buildings.
Structural character evident in the design.

The Barclay - Yesey Telephone Building -
New York. McKenzie, Voorhees & Gressin
architects. Studies show the struggle to

xlv.
gain a unit, to overcome the previous box-
like characteristic caused by the set - back
laws. Ornament well placed and adds interest
the the structural system. Logic and harmony
evident in the design - a modern manner.
p.367 v.130 American Architect.

Concerning North German Brick Architecture.
A. Woltersdorf. These illustrations show some
similar characteristics between the old and
the new brick architecture of Germany, per-
haps not in design but surely in structure.
p.471 v.130 American Architect.

The Buildings of the Ford Motor Company,
Dearborn, Mich., Albert Kahn architect.
Clean-cut, simple, and direct modern. Orna-
ment limited to simple moulds, fluting of
pillasters, few medallions, and names carved
in frieze above each bay to add interest
to the long horizontal. p.15 v.189 American
Architect.

Reflections on the Exposition des Arts
Decoratifs by Elise M. Bostock. "The Ex-
position was an hour of fancy, and a long
hour." Thus exhibit pleased or did not
please and this very fact indicates its value.
This exhibition tried to make us believe that
there is no difference between beauty and
pleasure. Everything was an appeal to our
senses. The entire Exposition might be de-
cribed as a futile gesture,—if not a hope-
lessly lost opportunity for helpful
accomplishment. Frames, unmeaning ornamen-
tation, that becomes tiresome, nearly
unbearable. Proportion has been dreadfully
Two Recent London Buildings. by R. J. Sturston. Great difference in the approach to the problem even though different programs. Britannic House is personal and the Adelaide House impersonal in approach to the problem. "If there is beauty and romance to be found in the Adelaide House it is found in the balanced synthesis of form, purpose, and material." There is a future along the lines of the Adelaide House. Ornament kept in scale with the human form and simply designed. The entrance is emphasized by a heavy surrounding with little but well placed, well designed, decoration. p.55 v.45 Architectural Forum.

1927

Fire Station No. 38 and Signal Headquarters, Cleveland, Ohio. Herman Krugelius architect. Modern - poor relation of tower to building - lines crass. p.139 v.61 Architecture Record.

The Liberty Memorial - Kansas City, Mo., stunning design of M. Angoagia. Is a clean, interesting modern composition - using meaningful sculpture expressing the form and use of the material. This too is true of Goodhue's design illustrated in Whitaker's book of his works. p.1 v.38 Architecture.

Modern Apartments in Amsterdam, simplicity to severity. p.225 v.85 Architecture.

Lake State Bank Building, Chicago. C. W. & C. L. Hopp architects. A feeling
of unity between form and ornament. Post and lintel constructions is not camouflaged. p.261 v.30 architect.

Verticallity in Design as expressed in the work of German Architects. - A. C. Boscum. "Everything points upward." The little ornament, usually of brick pattern work or little bits of carved stone tends to lead the eye upward in slender shafts. Striving for appearance of height as important as revealing structure. p.63 v.151 American Architect.


Coses Haus, Landestheater, Stuttgart, Prof. W. Littmann architect. The architect seems not quite able to make up his mind as to class or modern. - parts have a modern feeling while others are classic. p.315 v.132 American Architect.


The New Architecture and the Master Sculptor by Leo Friedlander "Architecture is and always has been far many practical
reasons the mother art, from whose breast came the other arts, painting and sculpture; hence how can we class the mother art in other than the same category with her offspring." "From our earliest civilization to the present day, therefore, the architect is really the "Master Sculptor", one who has had powerful influence upon the architecture's children." Where the problem calls for a relief, it naturally is a space in elevation to develop. "There is, beyond a doubt, a strong inherent structural sense in good sculpture, derived chiefly from an hereditary instinct to build, which is an important factor in the conclusion that all the fine arts were derived from the same practical source, and that this instinctive desire to build meant the birth of architecture and all the rest of the allied arts." Relief painting derived from relief. The "New Architecture" destined to be greatest expression in architecture and the allied arts the world has yet seen. Movement seen first in Austria, and first spread to Germany, then to Scandinavia, Holland, Finland, Switzerland, Belgium, and France. (spoken as the "New Tendency" or the "Stylized Art" and must be kept distinguished from the "Art Nouveau" that was prevalent in Europe about this time, (1890s).) "It is of interest to emphasize at this point that in the best examples of expression in our new architecture we are uncertain as to the suitable presentation." See understanding of past architectural performances in the early German work (Egyptian and Greek). Sculptors must grow to feel the nature and structural lines and masses of the new movement in architecture. Only
Thus can adequate detail be created. The Gothic language of form has asserted itself time and again and is of great importance in influencing the form of the new architecture. The subintype of building more than lends itself to further development. The important thing is learning good design in the new style will lie in the silhouettes. (Models to study mean) No precedent in all antiquity of the skyscraper. Cold adaptation of historic precedent will not satisfy. Up to the present time the decorations of our new buildings have been interesting but reminiscent of something akin to the "Art Nouveau". Some of our new buildings successful in their decoration. Styles do not develop overnight, but with modern quick communication how long will future styles of art and architecture live? p.1 v.46 Architectural Forum.

Some recent Monumental Doorways, by William J. Smith. "To the main doorway of a building there attaches an importance which is twofold. As an actual utility it supplies means of entrance and egress to and from the structure, while as a detail of design it supplies the focus of center point upon which there is likely to be lavished the utmost in ornament which the building possesses.” "Study of a notable example of whatever period will prove that the architect has devoted his utmost skill to the designing of the entrance, his care being given to the matter of scale as well as the employment of ornament.” p.25 v.46 Architectural Forum.
Architecture and Decoration of Automobile Show Rooms. by William F. Wharton. The next that can be done is to create a dignified, tasteful setting, planned upon an appropriate scale, to emphasize a car's excellence. p.303 Architectural Forum.

The Sculpture of a Modern Regiment. by Edwin J. Bishop (New York County Court House) A modern version of traditional figures figures in mind to represent the ideals to which courts of justice are dedicated. in the search for peace and action a constant reference has been made to the area as a whole, or, obviously, the filling of this triangular space with an ordered pattern. Figures in five groups bound together through a skillful interrelation of action and accessories. Acute angles seemingly filled with sense - unity of scale - sense of balance - lack of crowding or sparseness. p.319 v.46 Architectural Forum.

The Alisfeild Theater, New York Urban & Lamb architects. The decoration of this theater is a part of the gay, colorful happenings of the stage, and not, as is usually the case, a stiff, architectural affair which coldly and disdainfully withdraws from the stage picture. p.415 v.46 Architectural Forum p.333 v.61 Architectural Record.

On Use of Color in Commercial Architecture by Samuel Howe. We must see color, not as seen and devised in the drafting room, but color hundreds of feet up in the air. Climate must be taken into consideration, also local special conditions which affect the light. (aest, smoke) The interest should be in the
building as a whole, rather than to try to win the attention of the public by a subtle division of the upper story. p.478 v.47 Architectural Forum.

1925

Huresberg Planetarium, Otto Schneider architect. Entire ornamental effect gained by handling of brick. p.133 v.34 Architectural Record.

City Building, Asheville, N. C. O. B. Ellington architect. Unbelievable in its poor proportion, detail, and concentration. No evident regard to form or function. p.195 v.34 Architectural Record.

Church of St. Antonius, Augsburg, Bavaria. Michael Kurs architect. Interesting design in brick - porch hinders cleanliness of form - four figures on front add delightful spots to plain wall. Side elevations interesting treatment of repeated bays. p.185 v.34 Architectural Record.

Mail Order Store of Sears, Roebuck & Company, Los Angeles, Calif. C. E. Simmons and Company architect. Modern mass with bits of ornament of mayan influence not particularly well placed. p.65 v.34 Architectural Record.


A. Ferro-Concrete Church, by J. Woods Hill. Design very confused in composition - unpleasant, mechanical, fails completely to solve problem. An unpleasant result of a "noble experiment" p.153 v.53 Architectural Record.

The Park Avenue Building, New York, Buchman and Kahn, architects. Modern architecture - ornament in color - geometric ornament. Ornament decorates voids and horizontal members leaving vertical structural members plain. A feeling of balance between the horizontal and vertical is thereby gained. p.289 v.63 Architectural Record.


Los Angeles, Public Library, Bertram G. Goodhue, architect, C. M. Hines, associate. Lee Lawrie, Sculptor. Study of plain wall surface, relation of masses and fenestration ornament central in sculpture above entrance in finishing off of buttresses and mosaics of tower - seems to lack the refinement of Goodhue's other work. p.192 v.53; p.105 v.55 Architecture.

Cologne; a commercial building in Dusseldorf; and a department store in the Hague.


Number One Fifth Avenue, New York, N. Y., Helbie, Corbett and Harrison, architects. A modern architecture - Poor composition of masses as towers grow out of one another. Little ornament of no special value. p.469 v.133 American Architect.


Several Designs of Voorhees, Gmelin and Selker. Modern architecture in which ornament supplements form. Not ornament of historic styles but a new ornament - aiming toward a logical harmonious...


A New Architecture. by Ralph T. Walker. Ahead is the narrow way of creation. We shall take into the future a part of the present, and a part of the past even though these parts be but remembrance. Architecture grows out of the physical and spiritual needs of humanity, and though the needs are continuously changing and taking on new aspects, will continue to retain much of that which is of the past and of today. New architecture can never be entirely new but becomes, if creative, something akin to a series of fresh viewpoints through which the designer's individuality and the times in which he lives are expressed. p.1 v.43 Architectural Forum.

Office Buildings of Today and Tomorrow by the editor. The building is a shell and a shell it must appear. So far little has been done to give it
beauty. Attempts to enrich a building with fairly good proportion has generally resulted in the application of a linoleum pattern to the wall surface forming the spandrel between windows of the various stories. Silhouette important. Here we find the tall building, a new style of architectural expression peculiar to our own times. The thin walls of steel frame buildings is forcing the architect out of the rut of stylistic precedent. This obliges the present-day architect to seek other means of expression. Question of congested traffic and extreme height play an important part in the design and decoration of the sky-scaper. We have progressed from the stage of the type of building whose surface is covered with superimposed columns, and have finally stripped the thing down to its structural and practical elements, a sound and logical method. Some architects are drawing upon historic styles for their decoration and ornament while a few are endeavoring to create detail of a consistent character, original in conception and suitable in scale. "Simplicity and honesty, in an attempt to express the particular problem in the most direct way, are prime essentials in modern architectural designs." (Ely Kahn) Detail should be an integral part of the structure rather than an overlay of decoration which if removed would not in the least affect the structural qualities of the building. At a great height the effect of fine carving is lost but simple areas of plain color or tone of
of suitable size are effective at a distance. "In an endeavor to originate and create a style of architectural decoration sufficiently flat in feeling but brilliant in design, a distinctly new type of ornamentation is being created by several of the leading younger American architects." p.5 v.48 Architectural Forum.

Modern Architectural Decoration, by Parker Horse Hooper. "Conventionalization, geometrical and floriated designs, compositions in pure line, mass and color that have no representative significance, are all found in the wide range of modern architectural ornament and decoration." "Nearly always the decorative element is stronger than in the ornament of any of the historic periods." Often background if any is found in the art of Egypt, Assyria, and Maya culture. Simplicity of treatment and strong decorative character. The modern has taken the essential characteristics of their technique rather than the designs themselves. Modern ornament is often done only for the purpose of producing a play of light and shade in areas of a certain desired form at points on the building where this relief or accent seems to be needed. The ornamental detail of most buildings in the modern style is a more intimate part of the structure than in most historic styles, Egypt and Assyria excepted. Modern decoration is often in low relief, sometimes painted or in colored tile or terra-cotta, rather than in high relief or in the round. p.185 v.48 Architectural Forum.
On the Philosophy of Modern Art. by
Alex Beresford. What is art? "Creation through inspiration." Modern art experimenting. Seeking to regain that creative spirit that has been lost. "Creation not imitation." "Art, with a few exceptions, had fallen steadily backward during the last three hundred years, until in the final part of the nineteenth century it had practically ceased to be true art at all, but it is now again moving forward on the path of evolution, as all things must." Art had to go back to fundamental principles, such as are found in primitive times, when art was inspired entirely by the creative spirit, before it had been cramped and stifled by materialism. Create with an entirely new end in view, that of subjective truth rather than objective truth. Expressionism is the keynote of the twentieth century. Expressionistic architecture, literature, painting, sculpture, engineering, and all the advanced ideas of men. The new age is giving expression to the new art. Buildings are being built higher than ever before, glorying in their height, reflecting power and intensity. The modern world is one of bright lights, quickness, loud noises, new sensations. Art cannot remain quiet, but must live up to the age. Directness and intensification have become now the order of the day. Art can never be satisfied with an anaesthetic sentimentalism or mere prettiness; — and the proof is all around us, whether we like to recognize it or not. P.181 v.49 Architectural Forum.
The Rue Mallet-Stevens, Paris, by Parker House Hooper. Claim to architectural design is in their proportioning and the space of their solids and voids. The inspiration of the modern houses is geometry. Practically only decoration is found in stained glass window of stair halls. These windows too are a design of various sizes of colored glass and form a pattern rather than a picture. p.355 v.46
Architectural Forum.

Recent Banks by Davis, Sanlap, and Barney. by Parker House Hooper. A tendency in simplification in bank design is particularly noticeable in the work of some of the younger architects. The Greek and Roman temples, the triumphal arch motif and the Italian Renaissance palace as architectural precedents for bank designs are fortunately giving way to simple elevations with plain wall surfaces broken by well proportioned openings. A simplicity of treatment and concentration of architectural detail to relieve the severity of plain and unbroken wall surfaces. p.357 v.46
Architectural Forum.

The Architect as Collaborator with the Engineer, by Paul Philippe Cret. What is this paradoxical attitude of mind which combines a clear perception of the laws of progress with a stubborn tendency
to look backward, and to see in the past the ideal toward which society ought to be—
and is not—proceeding? Beauty is as much a child of cold reason as of imagination.
The great architects of all time realized this. Logic and clarity and strength, although they are elements of the beautiful are not all there is to beauty. Until they are emphasized by subtle modifications of lines and structural proportions,—until a sense of harmony, of rhythm and accent fuses them into an aesthetic unit, they remain mute; they are seen, but they are not felt. In architecture which is deduced solely from the necessities of construction is not architecture, because it is not art; it fails completely to evoke the emotional values latent in a mere manifold of mechanical factors. "Architecture begins where the calculations end."
The architect must have no fear of simplicity. His task is not to decorate, but to interpret—to clothe, if you will, but to clothe in a venture that reveals rather than in a garment that conceals. p.37 v.49 Architectural Forum.

The Parabolic Arch and Vault. by
Francis A. Casterdor. To be "in tune with the infinite" has always been man's longing; but our ego especially adores the great, the limitless. The architectural expression of this new rhythm, of this urge toward the infinite is, I believe, the parabola—the curve that pays us a visit en route from the infinite to the finite. This is true of adventure, athletics, literature, so shy art of architecture. We can call the parabola the emblem of man's life; one and here in the finite, the other end hidden
the infinite- eternal. p.733 v.49 Architectural
Forum.

New Treatment of Monolithic Exteriors
by Joseph B. Nash. In reinforced concrete
the architect has a medium which flows and
may be moulded, and through which form ap-
pears in gracefully unfolding stages until
the final mass stands revealed. In the
forming of mouldings, etc., it must be con-
stantly borne in mind that everything must
be designed for the perfect flow of material.

The Work of Josef Hoffmann. by
Shepard Vogelgesang. A design is appreciated
in relation to its destined human use,
in relation to the material of which it
is constructed, rhythms, and color. He
gives each object a logical, harmonious
form, exactly adapted to the conditions of
present life and expressed by perfect
execution. Hoffmann's aesthetic teaching
is almost summed up in the ideas of pro-
portion and rhythms. Artistic expression is
to be found within these limits, and it is
guided toward simplicity and clarity.
Artistic is beginning to feel the influence
of the modern spirit. p.897 v.49
Architectural Forum.

1929

Smith Young Tower Building, San Antonio
Atlee & Robert Ayres architects. Confused
in lower and upper portions by Gothic
detail. p.28 v.51 Architectural Forum.
Recent European Architecture, by
Rayne Adams. They have consciously
brought forth works of originality and
genius, and they have done this because
they have, at their best, succeeded in
freeing themselves, not from the spirit
of all precedent architecture, but in
freeing themselves from the special
vocabulary which, under the academic
regime, had taken so strong a hold. It
is this very expression of freedom which
is least understood in America. The
bizarre qualities of the work are noted,
the hideous procession of monstrous
emanations is observed—but the signifi-
cance of the protest escapes. If we
are to express modern requirements, why
should we search for decorative expression.
Where are we going to draw the line as
to what part it may play in our design?
The modernist tends to develop his plan
to meet the structural and functional
needs and let his wall openings take
care of themselves, feeling sure that if
his plan fill the functional and struc-
tural needs that we can find a way to
make the openings and plans attractive,
whatever their proportions might be.

The Rejuvenescence of Wrought Iron,
by L. Franklyn Paris. Iron is being used
greatly in modern architectural decoration
as stair rails, grilles, balconies, etc.
To the modern farrier, a thing is
beautiful when it fulfills exactly the
purpose for which it was created. Form
is everything; its ornament comes after, and even then it must not be unnecessarily applied. They have avoided the flimsy geometrical eccentricities of the radicals and they admit the curved line into their designs. Brandt, Azaro, Subia, and other show inventive genius and originality. They are modernists and scorn to copy the old clichés, but their composition is sane and plausible and not the product of a geometrical delirium, which the work of some seems to be. p.80 v.50 Architectural Forum.

Copying Versus Creating. by Shepard Vogelmann. To surround oneself with classic culture was the aim of the Renaissance, but the development of the machine has added other realities. Science has extended man's conceptions and power and the machines have produced new materials and quantities which the new conditions demand. The architect has been slow to accustom himself with these new conditions. It is not style that is needed,—it is technique; it is a sense of present-day life, its acceptance and adjustment to what is fundamentally human. He needs a public imbued with the fire of beauty in original creation, and he will give his clients that subtle thing called style,—the balance between man's spiritual and physical needs,—not an arbitrary creation. p.97 v.50 Architectural Forum.

Modern Architecture in Holland. by Edwin A. Horner. In the beginning all buildings, whether for shelter or for worship, were purely utilitarian structures. As men developed, his temples and tombs became more refined in proportions
and were embellished with ornament, culminating in the perfection of the Greek orders. These were a true expression of the logical use of the materials at hand to solve the problems of shelter and protection with the utmost possible beauty.

Today our lives are more complex and the requirements more numerous, but the same principle still applies. In most cases it goes so to a greater extent, which is primarily functional and secondly aesthetic. In Holland at present there exists a group of architects who, in creating new designs, hold uppermost in mind two qualities,—namely, logic and simplicity. Extremists go so far as to exclude everything from the design except absolute necessities, thus no decoration. Fortunately the Dutch have not thus far gone to this extreme. They take into account the fact that to discard all knowledge derived from precedent is mere folly. Effect gotten by the use of good proportion, simple mouldings, few well placed terra-cotta motifs, and clear colors, as well as the use of shadows. It is the skillful use of strong color combinations that lends a unique charm to everything in Holland. Combinations of such colors as yellow, gray, and orange; green, gray, and black; blue with touches of red and yellow; black with touches of one or two contrasting colors, are very pleasing on plain slab doors and on wood trim, both exterior and interior. p.205 v.5 Architectural Forum.
The Rejuvenescence of wrought Iron
Pt. II by J. Franklyn Paris. Some
radicals in art, in their warfare against
tradition and routine, have committed
many geometrical atrocities. The square,
the triangle, the octagon, and other
geometrical figures can not meet all the
requirements of representation, and des-
sign; thus the curved line is coming
close more into favor. p.341 v.50
Architectural Forum.

Paint on Concrete Surfaces, by
W. L. Caldwell and James R. Foster. The
present-day tendency in architecture is
toward making structure and decoration
an organic whole. The modernists insist
that there is certain beauty in any design
that is structurally sound. The texture
of concrete has a distinct rugged beauty,
but its sober gray is not in harmony with
the present demand for color. The cry for
color is being met by the application of
paint and stains to concrete surfaces.
p.333 v.50 Architectural Forum.

Architectural Modernism and the Church.
by Charles E. Maginnis. Until now art in
America has flourished without conviction.
So did not lack a definite national con-
sciousness, but only the capacity adequately
to assert it. It was the sky-scraper
which made the first breach in the hitherto
impenetrable bonds of tradition. v.617 v.50
Architectural Forum.
Some Modern European Churches. by Milton B. Lowenstein. Much of the church architecture of the nineteenth and early years of the twentieth century abounded with ambiguous detail along with a close adherence to precedent, so close in fact that it left little chance for originality or inspiration. After the war their was new life spiritually as well as politically and socially. Architecture, like art of every form, has high spiritual qualities, and its very functions render these qualities conspicuous. The modern church has succeeded in uniting many of the diverse elements of a complex social organization. Solids, voids, and reveals; as well as simplicity, no intermediary breaks, offsets, or string courses being employed, are characteristic of the modern churches of Germany, Holland, and Finland and Sweden. That it be synchronous with contemporary life is all we may ask of art; great art may do more, but the privilege of finding the tradition of the present must be left to posterity. p.453 v.36 Architectural Forum.

The Reliefs and Ornites of the Chau-Ming. Venicles. by Payne Adams. It would seem that the common run of decorative design follows along an intellectual line of effort which is in any way exacting. Most of us choose the canonical path. The aesthetic dreams of the world are built into the common clay of actuality by the use of a thousand accepted conventions. "The old question is use of such design. Is it good looking? Does it please the
aesthetic sense?" "This symbolism - what is it but a kind of alphabet, or more properly a language? It is of course a language that we all know." "In constructing a symbolic alphabet we give reign to our fancy, and as we develop the ideas based upon it, we have the assurance that there are definite conclusions." In the grilles of the Chanin Building the dominant idea which has been set forth is the significance of geometric lines and their capacity to symbolize emotions and abstractions of thought and deed. In these reliefs and grilles they have envisaged this life under two commonly accepted categories, - that which sets forth the physical life and that which sets forth the mental life. The supplementary grille panels, wholly geometric in conception, present a symbolism which, interpreted, bears out the meaning of the corresponding relief figures. p.693 v.50 Architectural Forum.

The Chanin Building, New York, by Matthis Price. A splendid contribution to the twentieth century architecture in that it pan rationalizes all the novel features of this new style, - and it is a splendid contribution to the architecture of all time because it is good design. At the street level there is interesting detail, - detail where detail can be seen, - a bronze frizade above the shop fronts, unusual entrance
shelters, and above the street floor an allowance pattern of modeled terra cotta. The Chanin Building is an impressive realization of the most hopeful predictions that were made years ago, when the zoning laws first imposed the setback restriction on tall buildings. At once it became necessary to design in masses rather than in facades. The facade always offers the strong temptation to create "paper" architecture. Details at high points seemed possible drawn to scale on paper, but in actuality were not in scale at great height and fell far short of having the intended effect. Now structures are designed in great vigorous masses, and are detailed only where detail will mean something. The top of the Chanin tower is a splendid piece of mass design, being neither abruptly blunt nor weakly tapered off. Raises the question: Is it not fallacy, and a contradiction to essential form, to weaken the top of a massive structure with a point or spire? It is often done, perhaps because of a lingering memory of Gothic cathedrals. There is an architectural precedent for the skyscraper and if old detail is to be used it must be very sparingly and in a modified form. The modern does not need pilasters, urns, garlands, or all those old familiar bits of oriole-end, - when the very scale and majesty of the whole composition significantly transcends any necessity for there being such artificial and relatively trivial accessories. p.695 v.56 Architectural Forum.

The architecture of industrial buildings, by Kahn. "It is evident that the new design of this type of structure dates from the first use of steel or reinforced lattices where large glass areas were possible." Light and ventilation are paramount." It is only when the designer begins to inject aesthetics that danger of clarity arises for fine proportion, balance of mass, and agreeable color shall present a pleasing form. The illustrations show the unsolved industrial building. The designs are modern but there is a feeling of uncertainty in them. The designs for the Jewel Tea Company and Michigan City Power House by Holabird and Root is perhaps the most pleasing for composition. Illinois Building by Buchman and Kahn is logical design except for the flat arches.

Architect Versus Engineer Shope

"architecture is the art and

science of orderly arrangement plus a

sense for beauty." "The architectural sense

for beauty is not bound up in ornament."

A building may be here and yet architecturally

beautiful through proportions, rhythm and

material." Illustrations of industrial

European structures based upon proportion

and materials. p.378 v.51 Architectural

Forum.

Ivyer Building, Philadelphia, A. E.

Scudder architect. Modern = science of

verticils and horizontals = logical


" Hartford County Building, Hartford,

Conn., Paul F. Cret and Smith & Benett

associated architects. Cret has thrown off

the illogical ornament of the Beaux arts and

has created a design which is definitely

modern using organic ornament accentuating

the proportions resulting from modern

structural requirements. p.449 v.51

Architectural Forum.

The Spirit of modern art, Raymond Hood.

"Real Beauty is only achieved when utility

is the goal." Modern art is nothing new

but merely the return of the artist from

hypocritical fields to sincerity. p.448

v.51 Architectural Forum.


Garden apartment building, Los Angeles, California, Richard Neutra architect. Horizontal lines of windows carried by dark material against white wall surface. p.276 v.56 Architectural Record.


Tendencies of the School of Modern French Architecture. Paul P. Cret. Two Schools, mathematics and logic versus humanity. "It is not proper to brand as "ugly" a modern building because of its lack of ornament, neither ought one to condemn, on the strength of some abstract principle, decorative facades which may be unrelated to the building and have no other purpose but to please." If they succeed in pleasing that is their excuse for being. Architecture of Le-Corbusier and Lebrat claims to be founded solely on utility. p.399 v.55 Architectural Record.

The Arizona - Biltmore Hotel, Phoenix, Arizona. A. C. McArthur architect. Design harmonizing the building with the terrain, and bringing out the natural inherent qualities of the material used. Ornament of all over pattern giving richness to the walls and emphasizing certain portions. Interesting study of masses. A functional architecture. p.19 v.66 Architectural Record.


lxxii.
The Boston Avenue Methodist Episcopal Church, South, Tulsa. Rush, Manuct, and Rush architects. Designed by Bruce Goff.
Modern sharp lines - poor relation of tower to main mass - ornament applied. p.58 v.86 Architectural Record.

The Stadium Amsterdam, Jan Wilks architect.
A modern solution of the stadium discarding the old Roman arches which are seldom functional today. p.165 v.59 Architecture.

Modern Buildings in Amsterdam:

The Bok Singing Tower, Mountain Lake, Florida. Milton E. Messer, architect.
Lee Lawrie, sculptor. A modern tower through showing Gothic influence. Pierced stone grilles - delightfully designed and placed ornament - simple direct mass.
193 v.50 Architecture.


Eight designs for the Chicago World's Fair of 1933. Corbett, Heilbird, Reed; Walker; Crat: Bennett; Burnham; Brown. All appear at small scale more unified than
Some Illustrations of Modern German Architecture. Study of structural forms is

Arthur Jerome Building, Butler University, Indianapolis Laggott and Ribben
architects. Regional influence but truly modern architecture and ornament. Pleasing

Fisher Building, Detroit Albert Kahn, architect. Inorganic arches imposed on
design at base and at top. p.5 v.135 American Architecture.

New York Life Insurance Company
Building, Cass Gilbert architect. Re-
tention of inorganic arch decorative forms
on piers and lintel type of construction,
tower handled poorly. p.196 v.135
American architect.

Fond State Capitol Monument at
Varennes, France. Paul T. Cret architect.
Modern monumental architecture - refined,
sureness, dignified. p.963 v.135 American
architect.

The Development of the National Capital.
Carrying out of classic scheme. Striving
for a clean, straightforward classicism.
Organic ornament well designed and well
placed. Stripping of ornament which does not add to the expression of the structures simplicity and purity of form and ornament. p. 639 v. 185 American Architect.

1930


Some recent work of Holabird and Root. As the rule functional architecture, the vertical slightly stressed by form not by adding pointed arches or other tricks. Set backs handled nicely and a built better relation of parts than usual. Ornament organic, logical and harmonious. A part of the functional requirements as a rule the structure rests upon an apparently sufficiently base. p. v.61 Architecture.


The Chicago Civic Opera Building, illogical ornament in upper portions. The architect apparently thought an opera house must have a portion and uses one seemingly patterned from the Paris opera resulting in a mass poorly attached and out of scale with the building. Lace work at the top is not the solution of the tall building. p.491 v.32 Architectural Forum.

The Palmolive Building, Chicago, Ill., Holabird and Root Architects. weaker at base than their usual designs, upper portion interesting but seems to rest on nothing. p.638 v.32 Architectural Forum.

The Joines of Gotham, designs show the victory of logical architecture over the illogical. The use of arch decorative forms have been replaced by more organic forms based upon the post and lintel of the steel frame. The masses and ornament are not yet completely worked out but the organic has definitely been victorious over the inorganic. The designs for the

The Chrysler Building, New York, William Van Alen architect. A tall building which appears illogical. The strong horizontals battle with the vertical, the masses are poorly composed then suddenly at the top an odd spire is added to gain height. The ornament is that of colored brickwork, at times stressing the horizontal at others the vertical. The building as a unit lacks consistency and leaves one with the feeling of a trick rather than a logical architectural composition. p.415 v.53 Architectural Forum.

The News Building, New York, Howells and Howe architects. Organic design, vertical important, colored ornament in panels between floors, entrance logically handled, a small low opening cut in a solid of imposing form. Overcomes that weakness corner to the entrance of a tall building; a large hole taking in three or four stories. Here the solidity of the lower floors is not weakened by a huge entrance hole. Rich ornament at the top is omitted and the result is rather pleasing. p. 539 v.33 Architectural Forum.

1931

The Empire State Building, New York, Shreve, Lamb and Harmon architects. A direct, fundamental office building design. Solid at corners which is more pleasing than the glass corners of the
Chrysler Building. This is a problem of aesthetics, not structure. Early studies without meaning must give a more pleasant silhouette and more delightful logical composition. Why must an office building terminate in a point? Lacks solidity somewhat at base desire for show window space cause. p.1; p.230 v.34; p.43 v.35 Architectural Forum.


Design for Minneapolis Post Office, Lu-ray and Euwiler architects. A modern public building incorporating the dignity of the classic in the forms of the modern.
Definitely a modern architecture. p.356
v.55 Architectural Forum.


 Impressions of Modern Architecture — Wm. Ward Watkin. "The 'modern' movement is a movement showing a distinct contrast to recent as well as traditional precedent." The modern primarily an architecture seeking a clear, direct expression. This article clearly and adequately outlines the hopes and accomplishments of the "modernist." p.356, 431, 521, v.18 Pencil Points.

A. O. Smith Corporation Building, Milwaukee Holabird and Root architects. Purely functional architecture, maximum glass area with vertical structural members apparent. Vertical feeling


The Waldorf-Astoria Hotel, New York, Schultz and Poer architects. The hotel problem solved in the form of the new manner. A fundamentally sound composition employing logical, organic ornament. Strength at the base and logical,
throughout except for closing the vertical window slite with slight arches; and the tacked on appearing towers. p.251 v.64 Architecture. p.39 v.159 American Architect.

Paris Colonial Exposition, Temporary architecture of frame and plaster - brick architecture. Some nice effects gained by solid relief sculpture across entire facade of buildings giving a play of light and shade and giving texture to wall. Entire sculptured facade behind a colonnade rather effective. Mass composition to this sculpture, no plain surface. An interesting treatment though the structural smoothness of the building is somewhat destroyed. Reminiscent of Egypt but walls do not retain solidity and strength that they did in Egyptian designs. Exposition also interesting for study of Eastern and African architecture. p.36 October V.140 American Architecture.

1938


Pilgrimage Play Theatre, Hollywood, California, William Scollitt architect. A retaining wall of monolithic concrete, flutes vertical for supports and horizontal for field furnish decorative

 Folger Shakespeare Library, Paul P. Crat architect. Alexander Trusbridge consultant. Exquisite example of modern architecture. Ornament functional, organic, and harmonious. Emphasis of form and proportion emphasized and clarified by ornament. A dignified, serene, modern architecture. A new manner, a new form has been created from new structural, functional requirements. A modern architecture which fits perfectly with the classic of Washington. Crat has met the problem of a new manner yet has not designed a structure which stands apart from its surroundings. p.46 September v.142 American Architect. p.573 v.56 Architectural Forms.

 Chance Comes this Modernism - William Ward Watkin. "Since temperament is a weak contender against logic, the art truly expressive of an age requires that its creators take their themes and material from their age, and not from the cemeteries of archeology." In the past few years Germany and Holland have produced buildings of simple brick work compared with refinement, France is becoming less stubborn with cubes and geometry, while America is making overtures to the new movement. "With all the fantastic and ugly that modernism has offered as a solution, it also is offering an increasing number of examples of
crystalline clearness and beauty." p.33
September v.142 American Architect.

Church of the Most Precious Blood,
Astoria, New York. Henry S. McGill
architect. A new manner of church design.
Design and use of ornament of a new
manner based upon new architecture with
a background of history. Form has
followed function. p.69 December v.142
American Architect.

Adler Planetarium, Chicago. Earnest
Grinnell Jr., architect. Simple and
dignified the design follows the re-
quirements of use and structure. p.17
v.71 Architectural Record.

Veterans Memorial Bridge, Rochester.
Cohnen and Ross architects. An
architectural bit of engineering. A
pleasing architectural form created on
engineering necessities. p.338 v.71
Architectural Record.

Design for the Palace of the Soviets,
Moscow. E. O. Hamilton architect. Or-
ganic architecture. function predominant,
class of irrelevant ornament. p.362 v.65

Diplomatic and Consular Establishments
of the United States in Tokyo, R. Ten
Buren Lagonigie, Antonin Raymond associated
architects. A modern architecture that
hones in keeping with the national arch-
itecture of Japan. Plain wall surface with
bordered by mosaic bands; a narrow frieze
band at top; and medallions over windows; and
pierced stone grilles. p.85 v.56
Architecture.

Rockefeller Radio City, New York
Reinhard and Hofsteter; Hood and Finlioux;
Corbett, Harrison, and MacMurray architects.
A functional architecture based upon utility,
openness, beauty, airiness, convenience,
Logical ornament, Buildings designed to be
viewed from all sides and top. Gardens
placed on roofs of lower levels. Ornament
designed to be viewed from all levels. Or-
nament placed to aid in articulating
functional form. Bases have a solidity
which allows towers to grow logically from
the ground. Pleasant handling of entrance
motives. p.1 v.55 Architectural Forum;
v.56 Architectural Forum.

The Kingswood School, Bloomfield
A modern school architecture. Away from old
idea of medival or classic buildings. New
housing for new ideas and teachings. p.41
v.56 Architectural Forum.

City Hall, Kalamazoo Michigan, Seely
and Sillman Company architects. Modern
architecture. Proportion and mass ac-
ccentuated by ornament. No ornament which
does not aid in expression is incorporated
in the design. p.151 v.56 Architectural
Forum.

American Battle Monuments in France and Belgium, Paul L. Cret architect. Decisive designs of material modern design. Ornament that also in exploration of form. Ornament incorporated in material not attached to it. p.474 v.33 Architectural Forum.


International architectural sections in Architectural Forum. As a rule the works illustrated have been noted before. Austria p.496 v.57; Germany p.132 v.38; France p.280 v.38; Italy p.492 v.58; Holland p.294 v.50; Sweden p.438 v.52.
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