

***OFFICIAL HANDBOOK of ARCHITECTURE
and SCULPTURE and
ART CATALOGUE TO THE
Pan-American Exposition***

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**BUFFALO, NEW YORK, U. S. A., *MAY FIRST
TO NOVEMBER FIRST, M. CM. & I.***

Published by DAVID GRAY, BUFFALO, N. Y.

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THE PURPOSES OF THE EXPOSITION

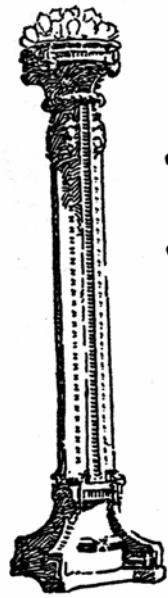
By JOHN G. MILBURN, President

THE act of Congress providing for a federal building and exhibit at the Pan-American Exposition states that it is desirable to encourage the holding of the Exposition "to fittingly illustrate the marvelous development of the western hemisphere during the nineteenth century by a display of the arts, industries, manufactures, and products of the soil, mines, and sea." The joint resolution of Congress previously adopted declared that this development was to be illustrated by a "demonstration of the reciprocal relations existing between the American Republics and Colonies." In these declarations the real object of the Exposition was comprehensively expressed at the outset, and it has been kept steadily in view. It is clearly revealed in every feature of the Exposition: in the architectural scheme, suggestive of the history of so much of this hemisphere; in the restriction of the exhibits to its "resources, industries, products, inventions, arts, and ideas"; and in the active participation of practically all of its peoples and countries. To have brought all of those peoples together for the first time in the accomplishment of such an object is the crowning achievement of the Exposition.

Originating in this clear and definite conception, the scheme of the Exposition has been carefully and intelligently evolved. From the first there has been a firm determination that it should be commensurate in its scope, plan, dignity, and execution with the aim in view. That

was the spirit of the commission to the men intrusted with its creation in all of its departments. They were left free to produce the best results, and it is under such conditions that they have produced them. They have received from the management the fullest sympathy and support at every turn. As a consequence there has been thorough cooperation and harmony in the elaboration and execution of the scheme of the Exposition - a scheme of impressive originality, beauty, and completeness, probably unexcelled in the history of expositions.

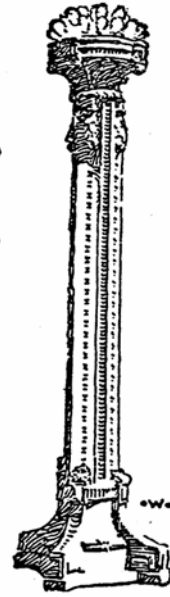
So much could not have been accomplished but for the association of the Exposition with a grand idea - the bringing closer together of the peoples of this hemisphere in their social, political, and commercial relations. That aspect of it has been the inspiration of the enterprise and the source of the enthusiasm which has carried it forward to completion. It is assured of permanent results in the new and closer ties of amity, interest, and sympathy between those peoples which are bound to spring from it and to stamp it as an historical event. And in it is the fairest promise that the hope will be realized so nobly expressed in the inscription on the Propylaea, "that the century now begun may unite in the bonds of peace, knowledge, good will, friendship, and noble emulation all the dwellers on the continents and islands of the New World."



• ARCH- . . . • -ITECTURE •

THE ARCHITECTURAL SCHEME

BY JOHN M. CARRÈRE
Chairman Board of Architects



It is interesting, in comparing the last great exposition, held in Paris, with the first exposition, held in the Crystal Palace, Hyde Park, just fifty years ago, to note the marked development of the exposition idea in all its features. The growing importance of expositions is apparent in their size and in the number of their exhibits, which can now be assembled with comparative ease from all parts of the world. It has also been possible, as demonstrated in Paris, to develop the educational idea to the highest extent, and to illustrate very completely in each branch of exhibits the historical sequence of the development of the special industry, craft, or art in all countries.

Notwithstanding the magnificence and far-reaching industrial and commercial results of recent expositions, no feature has assumed greater importance or is now better recognized as an essential factor in the success of every exposition than the development of the artistic treatment of the grounds and buildings, that is the architectural setting of the Exposition. The great extent of expositions and the rapidity with which the buildings must be erected has led to the use of inexpensive materials, such as wood and plaster, which can be readily handled and made to express the artist's conception without regard to permanency.

THE POINT OF VIEW OF EXPOSITION ARCHITECTS

The question of permanency in scheme and treatment has been an interesting one, and the great pliability of the materials used has led the designers of expositions in Europe and in America to work from totally different points of view. The European has invariably attempted to express the temporary character of the Exposition in his designs. The American, on the contrary, has made every endeavor to impress his expositions with the character of permanency and reality. Both points of view are interesting and reason-able when properly applied, and undoubtedly the object-lesson of the Chicago Exposition was timely and beneficial.

The European, surrounded as he is by many fine examples of great architectural compositions and with many opportunities of executing extensive permanent schemes even to-day, would hardly be interested in producing in temporary materials, on a larger scale, perhaps, compositions of the character of Versailles, the Place de la Concorde, and other great monumental ensembles, as was done in Chicago.

He could never expect to equal, much less surpass, the beauty of these permanent structures, built with great care and after much deliberation and study, the interest of which has been enhanced by the mellowing effect of time and the development and growth of their surroundings. He looks upon an exposition as an opportunity for artistic experiment and the execution, in temporary materials, of every dream of his imagination, no matter how fantastic. The fact that these experiments are temporary encourages him to dare, and one single great success justifies, in his eyes, the entire experiment. He dares to do in an exposition, and is allowed to do, what no sensible person would think of attempting in permanent form. In the American's case the conditions are entirely different—he must educate his artists and the public. He must create permanent works of art before he can afford such flights of imagination as the French indulge in.

The importance of the architectural setting of expositions becomes even greater when the matter is considered from the American's point of view. The Philadelphia Exposition, though it taught no special lesson, exercised, perhaps, in a general way as great an influence upon the arts and manufactures of the country as did the Chicago Exposition; but it did not make the same impression upon the public mind, because its setting was much less impressive than that at Chicago, which presented a magnificent ensemble of monumental buildings of classic style, severe and imposing, almost solemn in their appearance and at a most impressive scale. To most visitors this impression was entirely novel and lasting. 'It was a lesson which has already awakened in this country a better understanding and appreciation of monumental architecture and a broader interest in art.

At Buffalo, the Board of Architects of the Pan-American Exposition, with a full realization of the importance of the task imposed upon them and with the desire to avoid reminiscences of the Chicago Exposition, decided that the purpose of the setting of this Exposition should be to develop a picturesque ensemble on a formal ground plan, introducing architecture, sculpture, and painting as allied arts. They did not wish to go as far as the French in expressing the temporary character of their buildings, nor, on the other hand, to the other extreme as in Chicago, and yet it seemed essential to retain the balance and sympathy which are necessary in all artistic compositions. The adoption of a scheme entirely formal in its plan with well-balanced masses, but with absolute freedom in the development of the individual feature within these given lines, seemed not only a reasonable compromise with the two points of view previously mentioned, but also full of possibilities, for, without restraining the imagination it would tend to keep it within reasonable bounds and to make the Exposition more real in its application to the conditions of design in real life.

The very spirit of American planning on a large scale has heretofore been not only symmetrical, but even monotonously so, as is illustrated in almost every city of this country. The work of the future must be influenced by existing conditions which are beyond our control except in so far as we may modify or improve them—for we cannot eliminate them. It was therefore hoped that the attempt to combine the picturesque with the formal and to introduce decorative sculpture and color as factors of the design might be as suggestive in its way and as far reaching in its influence as the lesson taught at Chicago.

It would have been even finer if the Board of Architects could have gone a step farther in their object-lesson and designed a scheme of which at least the main features of the architectural composition could have remained as a permanent improvement in the locality. A few detached features or buildings always remain to testify to the beauty of an exposition, the greater part of which passes away and becomes but a memory. How much finer if the whole scheme could remain so that when the temporary buildings are removed their places might be taken gradually by permanent buildings, different in character, it is true, but with the proper setting. One can almost conceive the growth of an American Champs Elysees, with its Triumphal Arch at one end and its Place de la Concorde and the Tuileries at the other! Could anything be finer than to use an exposition as a 'means of obtaining permanent improvements of this magnitude; and is not, after all, an exhibition the only way in which we can ever expect to obtain any such results? Let us hope that it will be possible to conceive the next one on these lines.

THE METHOD EMPLOYED IN BUFFALO

The designing of the Pan-American Exposition was intrusted to a Board of eight architects, who, after examining the site and studying the problem in all of its bearings, decided on the general features of the block plan in joint conference, and determined, in a general way, the character of the Exposition and the underlying principles which should influence its development. The subdivision of the work and the allotment to the individual architects was reserved until all matters of general interest had been determined and agreed upon. The main points decided by the Board, as already stated, were that the Exposition should be formal in plan and picturesque in development, and that the style of the buildings should be of the Free Renaissance; that apparent roofs with overhanging eaves should be used in preference to fiat roofs with cornices and balustrades ; that color and decorative sculpture should be introduced freely into the treatment of the buildings, and that the character of the Exposition should be as gay and festive as possible, so that it would be a holiday affair.

The work was then subdivided into eight parcels and allotted to the different architects constituting the Board, as follows:

It was decided to resume the meetings of the Board from time to time in order to harmonize the work of the different architects and in order that all important questions should be decided by the whole Board, and not by any individual. Later Mr. Karl Bitter, as Director of Sculpture, and Mr. C. Y. Turner, as Director of Color, were made members of the Board, each having charge of his special department in consultation with the Board ; the Building and Grounds Committee and, at times, the Executive Committee participated in these deliberations.

In selecting the Board of Architects the Building Committee evidently had in mind the record of the architects and their ability to perform this particular work ; but they were specially fortunate in selecting eight men whose views could be harmonized and who could work together in a spirit of emulation rather than of competition. This was an important factor to be considered in the success of the scheme, because, having decided on the formal plan picturesquely developed, the difficulty of maintaining the general harmony in the execution of the design was greater than at Chicago, for instance, where the formality was carried into the buildings as well as into the scheme.

In passing judgment upon the work of the Board it is necessary to bear in mind that the object throughout has been to develop the greatest possible harmony in the general effect at the expense, when necessary, of individual preferences or even of the excellence of any single work. Each individual work must, of course, be judged on its own merits, but it must be considered first of all in its relation to the whole, because no man was allowed entire freedom and every one was more or less obliged to curb his imagination and to hold himself in hand for the sake of the general result.

THE SCHEME

The site had been selected by a Special Committee, and when the Board of Architects came into existence they found the general conditions already established. The site in itself offered no features which were characteristic of the city of Buffalo or of the locality, such as a site along the lake-front might have given, and there was the danger, on this account, that the Exposition might be lacking in local individuality. The plateau was perfectly level, virtually a vacant lot, without any commanding feature excepting a solitary row of pop-Jars along Amherst Street and proximity to the Park, one of the most beautiful creations of Frederick Law Olmsted, and approached from the city through Delaware Avenue, which thus brought the city and the site together in a most attractive manner.

It was apparent that the Exposition must be strongly influenced by its proximity to the Park ; but, as it was out of the question to alter the Park, even to the extent of removing any great number of its

beautiful trees, and it was therefore impossible to extend the Exposition into the Park, it was decided to extend the Park into the Exposition, and to obtain a gradual transition from the natural scenery of the Park, which was not to be disturbed, into the formal setting of the Exposition, and thus to make them part of each other.

The relatively limited area of the grounds made it practicable to avoid the difficulty encountered in the designing of most expositions where a beautiful setting or picture, which should have a principal point of view from which it is intended to be first seen, is approached from other sides so that the intended first impression, which is always the most lasting, is frequently entirely missed. It was possible to paint this picture at Buffalo with a definite view point, placed at the Triumphal Bridge, and to make the principal approach through the Park, so that the Spectator, as he approaches the Exposition, will see it develop gradually until he reaches the Bridge, when the entire picture will appear before him and almost burst upon him.

Other minor entrances had to be provided, the most important one at the north for the railroad, and yet the view of the Exposition as the visitor approaches it from the north will be nearly as complete as the main view from the causeway. The travel by street-cars necessitated an entrance at Elmwood Avenue, but every inducement is here offered the visitor to travel along the Park line to the Bridge, rather than in other directions, so- that it can be said that this Exposition has but one entrance, and that the great majority of visitors will certainly approach it for the first time through that entrance. This important feature having been determined, the scheme developed gradually on very simple lines. The main axis had to be north and south; around this axis were grouped the secondary axes. The first important one, - the Axis of the Esplanade, with its curved ends and its background of buildings, its Pergola on the south facing the lake gradually leading into the natural landscape of the Park; farther north, Amherst Street with the row of poplars, which has been maintained and made a part of the scheme. The buildings were grouped around this main axis on secondary axes, but *in* each instance the symmetry was preserved, not only in the ground plan, but in the importance of the buildings and their corresponding masses.

The Electric Tower was placed at the apex of the composition, and early in the proceedings it was decided that it should be the most conspicuous and highest feature. The general height of the other buildings in their relation to each other and to the Electric Tower was also determined on symmetrical lines, and here the visitor will see what is meant by "formality picturesquely developed" when looking at the attempt to balance two buildings as totally different in character, purpose, and design as the Horticultural Building on the one side of the Esplanade and the Government Building on the other, or the Electricity and Manufactures - Buildings on the one side of the main axis and the Liberal Arts and the Agricultural Buildings on the other.

In order clearly to define the importance of this architectural setting, and also to make room for the numerous secondary buildings and side-shows, which could not well be brought into harmony with this main part of the composition, the very interesting feature of the canal was adopted at the suggestion of the laymen of the Board. This canal places the main part of the scheme within well-defined and formal limits and permits of all the more freedom beyond its boundaries. It is the means of separating the discordant elements of the scheme and yet of harmonizing them.

It was necessary on arriving by rail on the north, to approach the composition somewhat gradually, and, for this reason, the Plaza was introduced and treated as a small Court of Honor. Being such a distinctive feature of the Exposition, when looked at as a whole, it was thought advisable that its development with the Stadium on one side, the Midway Plaisance on the other, and the Propylaea as the final line of demarcation of the Exposition, should be treated as a whole; for this reason the Plaza, with its surrounding buildings, was allotted to one architect. It is the only feature of the grounds which was thus treated independently from the general development of the grounds and landscape work.

THE LANDSCAPE SCHEME

The detailed treatment of the grounds should be considered not only as individual features which may interest the visitor, but in its relation to the general scheme and to each building. It is intended to harmonize the ensemble and to bring the buildings into proper relation with each other. Each part of the landscape work is studied not only as a setting for the building adjacent to it, but also to form a continuous and uninterrupted scheme, tying the whole composition together, accentuating its principal features, enhancing the salient characteristics of the individual buildings, giving accent and adding color to the perspective, and maintaining the scale of the whole scheme.

THE RELATION OF THE SCULPTURE TO THE PLAN

The sculpture, which is a most important feature of the grounds, cannot be properly judged and appreciated unless it is considered not only as individual works of art, but also as a decorative feature forming a part of the entire artistic scheme of the composition. In the study of the landscape work, the placing of the sculpture, its general character and mass, were carefully considered from its very inception, and it was in no case purely accidental. It was intended that the general treatment of the grounds should suggest the necessity for sculpture at the different points where it has been placed, and that, in turn, the sculpture should be so designed as to belong clearly to the place where it is set. This has been carried so far that the story which the sculpture tells is intended to be a continuous tale in itself; nevertheless the special subject of each piece has direct relation to its immediate surroundings.

THE COLOR TREATMENT

The color treatment of the Pan-American Exposition does not mean only the paint which is applied to the surfaces of the buildings, the bunting, and other brilliant spots, but it means what the artist calls color, the play of light and shade, form, outline, proportion, as well as actual color, all blending or contrasting with each other, as the case may require, and producing an artistic effect from whatever point one may look at the Exposition, like a well-composed landscape, of which, in this case, architecture, sculpture, and painting, as well as nature, are component parts.

THE SCALE

In conclusion, one of the most important factors in the harmony of the entire artistic composition, which are generally felt but not understood by the layman, is what the artist calls "scale," by which is meant the proper proportion of detail to the masses, and the proper relation of these masses to each other and of the whole to the human stature, so that each building may look its actual size, and each part of the building may in turn bear its proper relation to that size. It must be apparent to anyone that to maintain the scale in a composition of this character, conceived, studied, and executed in a very short space of time, under the most difficult conditions and by different architects, constitutes a real difficulty, and yet the entire harmony of the composition, from the artistic point of view, would suffer in no case more than in the lack of scale. For this reason the main effort of the Board of Architects has been to maintain -this scale in every part of the composition, whether in the buildings, the grounds, the sculpture, or the color.

HOW THE PLAN WAS CARRIED OUT

By WILLIAM WELLES BOSWORTH

[During the construction of the Exposition Mr. Bosworth acted as Mr. J. M. Carrere's personal representative and was also the chief of the Exposition Company's Architectural Bureau. - EDITOR.]

THE general axis-lines having been determined, and the relations of the buildings to each other and to the courts, it immediately became necessary to consider the very important subject of grades. The point determined on for the chief effect, i.e., the Electric Tower, was found from the survey to be two feet lower than the grade-level in the Esplanade. Imagine going down steps to approach a throne ! All dignity as well as impressiveness would have been irretrievably lost. The Bureau of Works was therefore obliged to face the colossal task of filling all the ground on a gradually rising -incline from the Esplanade to the rear of the Electric Tower (a distance of 1000 feet) to a height of 10 feet at the high level.

It was voted necessary by the Board of Architects to effect at least an 8-foot rise in order to obtain any sense of elevation, since it is a well-understood principle in architectural composition that any lofty and slender structure such as a tower seems to depress the ground on which it stands. This could not have been accomplished be-cause of restrictions in the land lease, had it not been that so much of the ground surface was covered by the buildings, whose footings, of course, were set upon the natural grade, with the floor-levels raised to the premeditated grade of the ground outside. It is interesting to know that all the high grades around the Electric Tower and north of the Mall were of necessity built of wooden trestlework on account of a shortage in available earth, so that even the huge basin of water rests upon wooden spiles.

The ground-levels being determined, the architects in charge of the landscape work then proceeded to make a huge plan of the *ensemble* sufficiently large in scale to enable them to give detailed study to each little corner of the grounds, determining steps and balustrades, terraces and planting-plots, as well as the larger and primal relations of fountain basins and sunken gardens, covered shelters and - resting-places, in opposition to open spaces for the crowds, free ways for " circulation," as it is called, and retired, picturesque corners. This plan also showed where trees were to be planted and the number of them, where permanent seats were to be placed, and where every pedestal for sculpture was to stand, as well as all the innumerable vases for flowers and tree-boxes and even lamp-posts.

These were listed and numbered, every one with as much care as an army receives in the numbering of every common soldier in his separate company. This done, the detailed study of the separate features began. Each bridge, each fountain, each separate feature, whether rustic or formal, was studied out and drawn with as much minutiae as though it were the façade of a building, while models in wax were made of the Grand Basin in the Main Court and of the Esplanade fountain basins, to enable the architect to determine, as he could from no flat drawing, the exact effect of every part. Even the water-jets in their height and volume were studied by means of wire and spun glass, and the lily-planting was indicated, as were the spots for flower-beds, by painting on the models.

It is not commonly appreciated how difficult and subtle a work it is to design the lay-out of a great fountain basin. Its laws of composition are far less understood than are those of a building, yet are even more exacting, and the main axis-lines are unchangeably fixed by the axes of the buildings round about.

Thus the center of the Fountain of Abundance could not play free of the axis-line of the Temple of Music and the Ethnology Building. Nor could the semicircular heads of the Esplanade fountains vary in their relations to the axes of the transeptal arms of these basins determined by the buildings, all of which greatly increased the difficulties of composition. From these models, with all their pedestals and separate

fountain features shown, Mr. Bitter arranged his sculptural themes or list of appropriate subjects, and a &ct which is not at all apparent but even more remarkable is that in perfecting his plan not one pedestal or sculpture feature was added to or omitted from the architect's plan, composed purely from the architect's point of view.

Mr. Bitter's scheme adopted, lists were made of the names of those sculptors who were available, and men deemed by the architects and the sculptors' jury as especially fitted for the nature of each subject were- selected for the various works. These gentlemen were then invited, after a general talk on the scope of the Exposition by Mr. Carrère and Mr. Bitter before the Sculptors' Society, to call at the office of the various architects, where they were made familiar with the subjects allotted to them, and the relations that must be maintained between these subjects and those that should balance and compose architecturally with them, and were requested to make small wax sketches for approval before proceeding with the work at a larger scale. This was cooperation to a point never dreamed of by most of the sculptors, and some of them were obliged to submit numerous sketches before falling into line.

The planting and flower-bed treatment had also to be studied at large scale, and the exact position of each cypress-tree or bay-tree or palm had to be determined and located by figured dimensions on the plans of the separate courts, so that stakes could be placed by the engineers.

The flower-beds were drawn with equal elaboration, and lists of plants were made out by the supervising landscape architect, Mr. Rudolph Ulrich of World's Fair fame, for the whole term of the Exposition, so that the fading ones might be replaced overnight by fresh flowering plants which were in the meantime being prepared or propagated in the greenhouses.

Cypress-trees were brought a year in advance from New Jersey and set out of doors to become acclimated, while car-loads of palms and orange-trees and tropical plants were brought from California, and hundreds of bay-trees were imported from Belgium.

Space does not admit more than the mentioning of these endless details, yet each was necessary to the unified completeness of the whole; and the observant and thoughtful visitor will experience an enriched sense of pleasure in his walks about the grounds, being somewhat acquainted with the *modus operandi* by which such a giant undertaking is necessarily carried to completion.

THE COLOR SCHEME

BY C. Y. TURNER, Director of Color

In considering a scheme of color treatment for the Pan-American Exposition, the Architecture, Sculpture, the purpose and character of the Exposition each had to be taken into account. The plan of Mr. Karl Bitter, Director of Sculpture, set forth in his article in another part of this book, seemed to me a very logical and proper treatment of the Exposition, and it seemed wise for me to pursue a similar course in the color treatment, so that I might, in this way, carry out the general scheme which was indicated in the plan of the grounds, buildings, and sculptural arrangements. Taking it for granted, then, that as we enter the grounds from the Park through the forecourt, the cause-way bids welcome to the visitors and the countries taking part in the Exposition, we would come upon the elementary conditions, that is, the earliest state of man suggested on one side, and primitive nature on the other. I concluded that the strongest primary colors should be applied here, and that as we advance up the grounds the colors should be more refined and less contrasting, and that the Tower, which is to suggest the triumph of man's achievement, should be the lightest and most delicate in color.

It seemed to me very wise and necessary to supplement Mr. Bitter's idea and try to carry out in color the same thought. I therefore began at the entrance to the grounds with primitive or primary colors, and

as I advanced up the Court and into the Exposition, the colors became more refined and grayer, reaching a climax at the Tower, which was to be the lightest and brightest in color.

Since I wished in some way to emphasize the great power which was being used to run the Exposition, the beautiful emerald-green hue of the water as it curls over the crest of Niagara Falls seemed to be a most fitting note to carry through the Exposition, and I therefore adopted it and have endeavored to carry this color on some portion of every building.

In the Tower I have given it marked emphasis and have made the general scheme here ivory-white, green, and gold.

This, then, is my general plan or scheme, and my wish has been to do all that was possible for me to do to express this idea and be in harmony with what I believed the Architects and Sculptors wished to say through their respective arts.

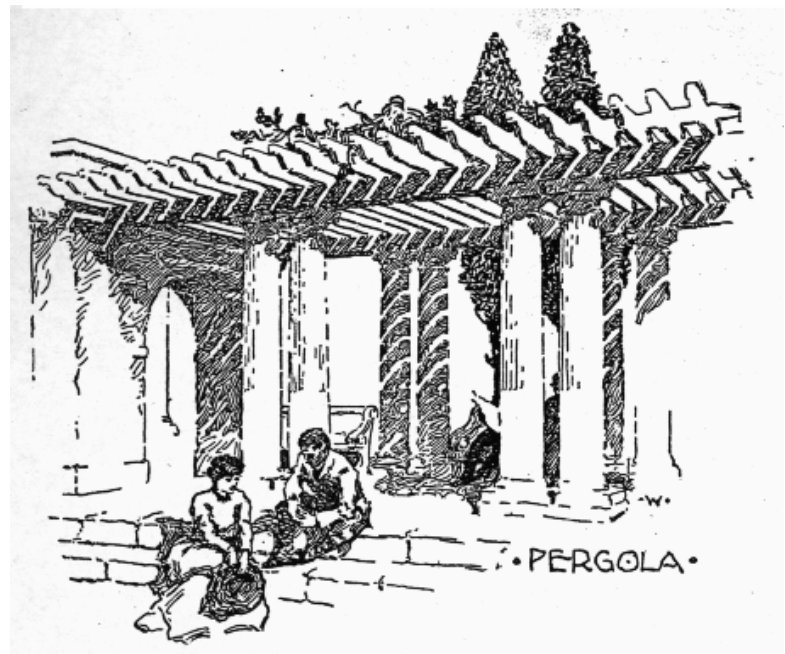
A model of the various buildings made to scale was executed and erected in my studio, which covered a space of 12 feet by 16 feet. This model was made on a scale of one-sixteenth of an inch to the foot, and all the buildings were then colored and changed as was deemed necessary until a harmonious result was arrived at.

The small model which I had built as colored could give only the tints of the body of the buildings and the roofs with some slight suggestion of towers and pinnacles. It was necessary, therefore, to be more explicit, and the drawings of each building were then taken up and colored in detail. First the elevations of the buildings, and then the great door-ways, towers, corner pavilions, entrances, finials, and all parts which might be treated.

From various conversations which I had had with the Architects, - Painters, and others who were interested in the Pan-American Exposition, I had gained the impression that the style of Architecture was Spanish-American and that it was the desire of the Board of Architects as well as of the Exposition Company that the buildings should be treated with bright, brilliant colors, and that a suggestion of Spanish treatment of Architecture in coloring should be given. I therefore studied this matter in the various works at my disposal and tried to familiarize myself with the manner of their treatment, and as far as possible produce a result which should resemble, as near as might be, work of that period.

The Horticultural group has orange as a basis for the color of the body of the building. On the Government Building a warm yellow is used for the plain surfaces. For the Music Hall, I have used red, quite pure, as the foundation color. On the Ethnology Building, golden orange. On the Machinery and Transportation Building green as the basis. Opposite it, across the Court, the Liberal Arts Building is a warm gray color. The Electricity and Agricultural Buildings are different shades of light yellow, while the Restaurant and entrances to the Stadium have a French gray as the basis, with a lighter shade of the same tint on the Propylaea. For the Electric Tower I reserved a light ivory. The buildings of the Sunken Gardens are of a darker shade of ivory. In the Horticultural group I have used blue and white largely in the ornamental portions of the panels, pilasters, spandrels, etc., relieved now and again by brighter shades of rose and deep yellow. The Government Buildings have a mild gray for the structural portions to relieve the yellow, and in this building, where it is possible, the green note is introduced in the sashes and doors ; blue on the dome, and gold on the smaller domes. Blue-green is on the dome of the Temple of Music, and is repeated again on the Ethnology Building. On the Machinery and Transportation Building red, yellow, and green are introduced in the great doorways, and corner pavilions, and also are distributed through the towers, while blue and gold play a large part in the detail work of Liberal Arts Building, especially on the ceilings of the colonnades and east and west entrances, and in the great pediments of the north and south entrances. The yellow of the Electricity Building is relieved by gray trimmings and green doorways which are elaborately enriched in their ornament by delicate shades of the prevailing tones used throughout the Exposition. The Agricultural Building is warmer, and there are blue, yellow, and ivory, and stronger notes of red and green in the entrances. The Restaurants are ivory and French gray. The sashes and doors are painted green, and the minarets and pinnacles are tipped with gold. The Propylaeon which carves across the north end of the grounds has a wide open arcade, the

panels of which are enriched with brilliant red where white statues are placed, while the panels above are a bright yellow. The ceilings are blue, and the trellis above is made a strong violet hue. Violet occurs again at the entrances from the Railway Station through the great Arch. The Railway Transportation Building is in a French gray with green roof and ivory and gold trimmings, while the Stadium, one of the most imposing buildings of the Exposition, will be a light ivory-gray, with pale blue-green sashes and doors. The Tower, as I have said before, is a very light ivory, and is enriched in the capitols, brackets, finials, stars, pinnacles, etc., with gold and is crowned with a gilded figure of the Goddess of Light. The panels have the brightest fresh blue-green we could make, and is intended to suggest the water as it curves over the crest at Niagara. The statuary throughout the grounds will be treated in white, and it is my belief it will be a pleasant contrast and make the color more apparent. Lamps and urns are treated as green bronze, verte antique. Flag-staffs are treated in a similar manner, except the greater ones, which are made to harmonize with the buildings in their immediate neighborhood, cool at the north end of the grounds in ivory and green, and warmer in red, yellow, and blue at the south. The great piers at the causeway are a soft, warm gray, suggesting limestone or some kindred material. Pergolas are treated in bright colors, the lower third of the columns being orange or red, and the upper two-thirds a light stone color with brown beams, blue ceiling, and green roofs. The notes of green, gold, ivory, blue, and red are distributed throughout all the buildings, so that it can be said, as someone remarked to me, "I see you are using the Pan-American Colors on the buildings, red, white, blue, green, and yellow." The buildings in the Midway are treated with more liberty, but in the same general tone of color as the main portion of the Exposition. The State Buildings and other concessions about the grounds have considerable latitude in treatment. The Woman's Building, which is a remodeled country club-house, has been treated in soft, quiet green. It is a frame building and is among the foliage. All the canal banks, bridges, and embankments have a soft gray stone color, with little or no enrichment other than the architectural design. Many flags and banners are to be distributed on the buildings of various colors suggestive of the countries taking part in the Exposition and adding gayety and liveliness to the scene. Awnings over the landings and peplos are treated to harmonize with the adjoining buildings.



This is the first time to my knowledge that a general scheme of color has been undertaken and carried out in any exposition, and it is our sincere hope and belief that the result will - warrant the time, labor, and expense expended upon it, and give great pleasure and possibly influence the art of our country in the future.

The interior decorations, which are being carried on under the direction of Miss A. J. Thorpe, Assistant Director of Interior Decoration, will conform in general plan to the exterior coloring of the buildings, and relate as far as possible to the exhibits contained therein.

THE EXPOSITION ILLUMINATED

By HENRY RUSTIN

Chief of Mechanical and Electrical Bureau

[Beautiful as is the Exposition by day, the visitor has seen but half its beauty until he has seen it at night. By a novel apparatus the electric current is turned on by degrees. The Tower, the buildings, the long lines of lamp-pillars, seem to pulse with a thrill of life before the eye becomes sensible to what is taking place. Then a faint flush comes, like the flush which church spires catch from the dawn. This deepens for an instant to pink, then grows red, and mellows into luminous yellow, and as if by magic the exposition of beams and staff has vanished and has become the glorified spirit of the thing. It is the most marvelous effect of artificial light which the world has ever seen. Less than thirty years ago tourists gathered to see the illumination of the dome of St. Peter's at Rome, effected by men setting off Bengal lights in spiders. It was considered almost a miracle. Beside the Tower of white flame at the Exposition St. Peter's would have seemed dingy and almost in darkness. The article which follows on the lighting of the Exposition is by Henry Rustin, the man under whose direction these wonderful effects have been produced.-EDITOR.]



THE lighting of the Pan-American Exposition is considered to excel all others in the quantity of lamps in operation as well as in their arrangement for decorative purposes. When the observer stands on the Triumphal Causeway and looks toward the Tower, it is not difficult to convince him that no artificially illuminated area ever before presented such a quantity of mellow, glowing points of light. The area of the Court of Fountains and the Esplanades is equal in extent to the combined courts of former expositions all put together. Hence the problem presented to provide light for traffic alone was a considerable one, even if lights for decorative purposes had not been required. The lighting of these great areas is accomplished by placing clusters of lights on frequent ornamental staff supports, which were kept at as low a level as was consistent with the architectural conditions and scale, in order that the source of light might be as near as possible to the objects to be illuminated. These lights were placed along parallel lines, or in accordance with the arrangement of walks, and present a very gay appearance. They were intended to be arranged so as to distribute the light equally, and so carefully has this been worked out that one seeks in vain for a shadow.

The decorative lights are arranged with reference to the complete general effect and not with regard to the individual treatment of the buildings. The scheme adopted involved a gradual working up of the intensity of the illumination from the southern part of the exposition grounds to the Electric Tower, where a climax of electrical effects is reached. The Tower itself, when lighted, stands out as a most attractive object and indescribable in its appearance. The volume of light on this Tower, when seen at a distance, takes on an appearance which suggests to the mind phosphorescence as well as the semi-incandescence of the structure itself. Observers at a distance of twenty miles or even more can easily pick out this object as a thing of beauty and almost awe.

All through the arrangement of the plan of lighting, the twofold advantage of placing lamps in such a position that they would serve both for decorative purposes as well as for the practical use of lighting traffic was kept in mind.

For the first time in the history of exposition lighting, the unit of light has been reduced to eight-candle-power lamps. This gives almost perfect diffusion. Heretofore methods were employed in illuminating large areas, which necessitated the use of arc-lamps, clusters of Welsbach, or large oil-

burning lamps. Such methods produced an unpleasant sensation, due to the concentration of light, which blinded the eye to such an extent that objects behind the source of light were not clearly defined, and the eye in attempting to adjust itself to look at other objects was deceived. The eight-candle-power lamp does not blind or dazzle

A novel method has also been introduced on a large scale to produce a rather spectacular effect. This is accomplished by passing the entire quantity of current used for lighting through a rheostat which can be manipulated so as to bring the lights from zero up to full candle-power, and from full candle-power down to zero. This effect, when applied to so vast a quantity of incandescent lamps, is almost startling and at the same time pleasing. The uniformity of the light, since it is all of the same quality, gives an even tone of illumination to the eye throughout the Exposition grounds.

The extensive fountain display in the basins enlivens the setting by day and furnishes a certain attraction which appeals to each beholder. At night this water display becomes part of a most pleasing ensemble, which adds its effect to the lighting. No known agents are capable of a more pleasing blending than a studied combination of water and light. The niche in the Electric Tower has been selected as a stage for a display of water and light effects in a greater quantity of each than ever before has been combined. The result is beyond a doubt the most impressive ever beheld.



FROM AN ART CRITIC'S POINT OF VIEW

By MRS. SCHUYLER VAN RENSSELAER

Author of "English Cathedrals," "Art Out of Doors," etc.

In art, as in science, more may be learned from one good object-lesson than from the long preaching of theories. Yet never, perhaps, has a single example of success taught so much to so many people as did the Chicago Fair of 1893. And one of the results of its teachings is the artistic success of the Pan-American exhibition.

The White City showed a public which was greatly in need of such instruction that artistic excellence depends first and most of all upon artistic harmony. Nowhere else in the United States had the virtues of coherence and logic in a general plan and of concord in the buildings erected upon it been convincingly illustrated. A fine and comprehensive plan had, indeed, been devised for the national capital, but it had not been rightly carried out. In scarcely any part of any other American town had harmony of general effect even been thought of. Nor had it been considered when our first great exposition was built; and, in consequence, those who visited Philadelphia in 1876 carried home many memories of beautiful individual things, but were not impressed or interested by the aspect of the exhibition as a whole.

At Chicago the case was very different. Here the most impressive, interesting, and beautiful exhibit was the Fair itself-the White City as a whole. And the reason was plain: the three elements that composed it, architecture and verdure and water, had been so combined that each enhanced the effect of the others; and in its main portions- in and near the Court of Honor-the labor of many architects and sculptors had been guided by certain general prescriptions. The result proved that a high degree of beauty may be produced on a vast scale by many allied hands as well as upon a small scale by a single hand. It proved that in the one case as in the other, harmony must be the fundamental and the dominant

aim. And it proved that harmony means, not monotony, uniformity, but variety in unity. No two buildings on the Court of Honor - were alike; but they were all placed in a right relationship to each other and to the space they encircled, and they were all concordant in size, style, and color. Therefore a magnificent general effect was achieved, while the merits of each individual structure were accentuated and its faults were minimized.

The lesson thus taught with triumphant force and clearness was generally apprehended and appreciated. The people at large realized why the White City was so beautiful; and, moreover, when it showed them, for the first time, beauty created on a great scale by the hand of man, they recognized it as a thing worth caring about, worth getting. They may have forgotten by this time whether the Chicago Fair was a commercial success or not; but they remember very well that it was a great work of art, and that, as such, it justified all the labor and all the money that it cost.

The seeds of knowledge in regard to the character of beauty and in regard to the value of beauty that were thus widely scattered are bearing good fruit. Everywhere in our country more desire for architectural excellence is manifested than was shown ten years ago, and the right way to achieve it is better

(Pages 26 and 27 are missing, please refer to the original document for these pages.)

greens, and blues, laid on in more "telling" masses; and pure white might have been used more largely as their background. But it should not be forgotten that this was our first experiment in polychromatic architecture, and that the scale upon which it was made rendered success doubly difficult. Nor should it be thought that the experiment has failed. In color, as in design, the Pan-American is a delightful thing to see. Only, if it had been painted with a bolder hand it might have been more brilliant, more reflective, even more gay and festal-looking, than it is to-day.

In regard to the effect it makes at night, the Pan-American need fear no comparisons, actual or fancied.

At Chicago we realized for the first time what impressive, poetic, witching beauty may be created by the use of artificial light. In one sense it is not artistic beauty. In another sense it is; for it is created by the hand of man, although with one of Nature's agencies, and cannot fully reveal itself except upon an elaborate architectural background, and it is the one kind of beauty that modern men have evolved without any help from tradition or precedent. It is the one kind of beauty that we possess and that the ancients, so greatly our superiors in the production of many other kinds, knew nothing whatever about. We shall never see a permanent city as splendid as the daytime Rome of the emperors-the conditions of modern life prevent; and under the rays of the moon imperial Rome must have seemed even more grandiose and wonderful than under the beams of the sun. But on dark nights it could not be seen at all. It had nothing with which to illumine itself excepting torches, oil-lamps, and upon great occasions, perhaps, a few tar-smearing, burning Christians. Such a spectacle as the great court of the Pan-American presents when its myriad stars and garlands of fire bloom out, its unequalled cascades and fountains shimmer with varied hues, its Electric Tower is an almost solid sheet of flame, and the gigantic rays of its search-lights stream in many directions- such a spectacle as this the old Greek - or Roman could no more have imagined than the cave-dweller could have fore-seen the architectural marvels that crowned the Athenian Acropolis and stretched along the shores of the Tiber.

Our people, it has sometimes been said of late, are acquiring "the exhibition habit." Even before the Pan-American was built, four or five other expositions had been projected in different parts of the country, and we seem to be approaching a time when we shall be invited every summer to visit some temporary city, planned to benefit its organizers in commercial ways, and, in order that this end may be attained, planned to be a beautiful popular pleasure-ground. Is there any reason why we should not hope that this time may indeed arrive? Even in our largest permanent cities our chances to enjoy works of art, especially works of monumental art, are sadly few; and in our rural districts opportunities for recreation

that will stimulate as well as rest the mind are no more plentiful than chances to learn what the world is accomplishing along the paths of industry and science. Instruction, recreation, and esthetic enjoyment - all these are offered by such a place as the Pan-American in great variety, of high quality, and at small cost to the individual visitor. If the cost to the Organizer is not too heavy, if the permanent city which fathers the transitory one profits by its existence, we can hardly see it rebuilt too often on ever-changing sites throughout the length and breadth of our country.

CATALOGUE OF BUILDINGS

[The descriptions of the chief buildings of the Pan-American Exposition have been written for the Art Hand-Book (except in a few instances) by the architects that designed them. It is felt by the Editor, therefore, that they may be presented as accurate and official descriptions of the Exposition architecture.]

PYLONS OF TRIUMPHAL CAUSEWAY

By JOHN M. CARRERE

Of Carrere and Hastings

The architectural purpose of the Triumphal Causeway is to balance the Electric Tower and to establish an entrance-portal to the great courts of the Exposition proper. - As a gateway from the natural landscape of the park into the formal scheme of the Exposition it was desirable that it should have both the elements of dignity and exposition gaiety. The four Pylons are monumental in size, being 40 by 50 feet, and in color suggest stone. From the water-level to the base of the equestrian figures it is 116 feet. The avenue between them is 140 feet wide, the center line of which is the main axis of the Exposition, with the Electric Tower at one end and the statue of General Washington at the other. The sculpture which decorates the Pylons carries out the idea of national power and glory welcoming the world to the Exposition. The garlands of shields and the colored flags which festoon them lend an air of gaiety, and subtly suggest the idea of the draw-bridge leading from the natural outer park to the beauties in the creation of which man has been the chief factor.

THE CURVED PERGOLAS

By JOHN M. CARRERE

Of Carrere and Hastings

These structures curve from the Triumphal Causeway to the eastward end westward, tending to connect the Pylons with the Esplanades and to unify the architectural composition of the whole plan. They were designed to provide covered shelters for the visitors, and are an adaptation of the Pompeiian trellis, but on a larger scale and more elaborate. Double rows of columns make a wide nave and two side aisles with a pediment at either end. The side aisles are divided into bays, thus forming retired places for the visitors to sit and listen to the music on the Esplanades, and watch the gondolas on the water of the East and West lakes.' Since being designed these buildings have been converted into open-air restaurants. They are gay in color treatment and suggestive of the exposition spirit.

THE ESPLANADE BAND STANDS

By J. M. LYALL

At the Architectural Bureau on the Exposition grounds a number of clever and able young designers were employed, some of them being ex-students of the École des Beaux Arts of Paris, and it was decided to give them some opportunity for individual expression in some of the minor constructions about the grounds, so that a system of competitions was instituted for designers for some of these things, among others, for the Esplanade band stands. The design executed was the work of Mr. J. M. Lyall of New York. It is thoroughly original in form and very expressive of its purpose, with its four great sounding-boards under the domed roofs and the gay and festive character of its flowery detail. Another of these competitions was for the bridge at the south end of the Venice Canal. This was the work of Mr. Frere Champney, also of New York.

THE GOVERNMENT BUILDING

FROM THE UNITED STATES GOVERNMENT OFFICES

J. KNOX TAYLOR, SUPERINTENDENT

This building more than any other on the grounds is Spanish-American in its architecture, directly suggesting the type of the Mexican church. It closely resembles the great Cathedral of the City of Mexico. The treatment of the columns in the portico shows the influence of the modern French spirit, and the quadriga on the dome, as well as the general form of the building, which is distinctly that of an exposition building, prevents it from being a misapplied copy.



The ground-plan is the same as that of the Horticultural Group of buildings opposite, both of which were agreed upon when the plan of the grounds was laid out. It consists of a large center building with dome and two flanking square pavilions connecting with each center building by semicircular arcades. The large center mass is made picturesque by numerous small towers and gilded domes and the use of picturesque Mexican gables at the north and south ends. The stately portico fronting on the Esplanade is not only impressive in its composition, but pleasantly suggestive of the United States Capitol at

Washington, a suggestion which the public of America has come to look for in every building representing the national government.

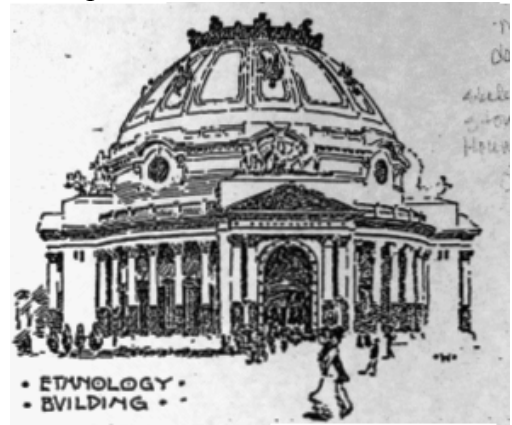
THE ETHNOLOGY BUILDING

By GEORGE CARY

The character of this building is classic in outline, with Renaissance decorative treatment. It is situated at the eastern junction of the Grand Esplanade and the Court of Fountains. The building is circular in plan, with the main entrances on the diagonal axis; between and connecting these is a continuous colonnade with a decorative frieze over the windows. The colonnade is raised some seven feet above the level of the Grand Esplanade, giving a covered portico or loggia commanding a pleasing view. Surmounting this colonnade is a terrace, with balustrade decorated with Martiny's "Torch-Bearer."

Over each entrance is a pediment containing McNeil's ethnological group, forming the decorative motive of the tympanum, and back of and above each pediment is Phimister Proctor's "Quadriga," made by him for the United States Government Building at the Paris Exposition of 1900.

The building is covered by a dome like that of the Pantheon at Rome. The dome of the Ethnology Building is capped by a decorative cresting, the highest point being 150 feet. Hidden by the cresting is the skylight opening which lights the interior. Surrounding the dome, in eight of the sixteen panels, are eagles measuring 16 feet over all, and below these are eight circular windows in the encircling shaft, lighting the upper gallery. Surmounting each of these windows, and standing below the eagles, is Brewster's ethnological group, described elsewhere. The building covers about 20,000 square feet. There are two octagonal galleries, the first one being 25 feet above the floor, and the second one as feet above that. These galleries and the roof terrace are made accessible by staircases located at the side of each entrance.



The eight decorated piers of the interior support eight arches, forming the octagon which, with the pendentives, carries the dome. The galleries encircle the octagon, leaving an open space under the dome 80 feet in diameter and 120 feet in height.

Inscriptions for the Ethnology Building.

- I. "KNOWLEDGE BEGINS IN WONDER." - Plato, Aristotle, Langley.
- II. "SPEAK TO THE EARTH, AND IT SHALL TEACH THEE."-Job xii. 8.
- III. "NOTHING THAT IS HUMAN IS ALIEN TO ME."-Terence.
- IV. "AND HATH MADE OF ONE BLOOD ALL NATIONS OF MEN."- Acts xvii. 26.
- V. "WHAT A PIECE OF WORK IS MAN!" -Shakespeare, Hamlet, ii. 2.
- VI. "ALL ARE NEEDED BY EACH ONE."-Emerson, Each and All.
- VII. "THE WEAKEST AMONG US HAS A GIFT." - Ruskin.
- VIII. "NO SE GANO' ZAMORA EN UNA HORA."- Cervantes, part ii. chap. lxxi.
- IX. "O rich and various Man ! thou palace of sight and sound, carrying in thy senses the morning and the night and the unfathomable galaxy; in thy brain, the geometry of the City of God ; in thy heart, the bower of love and the realms of right and wrong."-Emerson, The Method of Nature.

THE TERRACES

BY JOHN M. CARRERE
Of Carrere and Hastings

THESE are four terraces running north and south on either side of the Court of Lilies and the Court of Cypresses. They were erected not only to form these retired courts and provide easy passageways from one building to another, but also to furnish elevated resting-places as points of vantage from which the public might view the illuminations and fountain effects. They were inspired by the famous architectural treatment of the lake-at the Parc Monceau, Paris. The row of gables, executed by Professor L. Amateis, which bear the trellis, is, however, a new feature.

MANUFACTURES AND LIBERAL ARTS BUILDING

By GEORGE F. SHEPLEY
Of Shepley, Rutan & Coolidge

The Manufactures and Liberal Arts Building occupies a space 350 by 500 feet, with a courtyard in the center 132 by 170 feet. A cloister extends around the interior of this courtyard, and it was intended to place in the center a fountain surrounded by statues and ornamental trees ; but after the building was completed it was found necessary to roof the courtyard over in order to provide more space for exhibits.

The south or principal front of the building, which is 500 feet long, faces the Court of the Cypresses. In the center of this front is placed the principal feature of the building, which is a great dome rising to a height of 130 feet, surrounded by four towers. At the corners of the building are pavilions surmounted with smaller domes.

The west façade, toward the Court of the Fountains, is kept simple and low in order to give greater value to the Electric Tower at the end of the Court of Fountains. A little more prominence is given to the front on the Mall, where the entrance is under a pediment some 96 feet in height, which is surmounted by winged figures. The east front, which faces the Canal, is treated in a similar manner to the west front.

The building is entered from the center of all four sides, and also from the pavilions on the corners. An arcaded loggia, with a groined ceiling, extends around the building on all sides and gives a convenient resting-place sheltered from the sun and rain.

The treatment of the exterior is a free treatment of Spanish Renaissance, the idea being to give, by means of color and decoration, an expression of gaiety and lightness as far removed as possible from the serious buildings of other exhibitions held in this country. The cornice is formed by the rafters of the roof projecting over, and is treated richly with color and carving.

On the front of the building, between the arches, are placed the seals of the governments of the various South American republics. Over the main entrance is a group of statuary typifying the Arts and Manufactures. This group and the winged figures over the entrance on the Mall are by Mr. Bela Pratt of Boston.

PERGOLA BUILDINGS

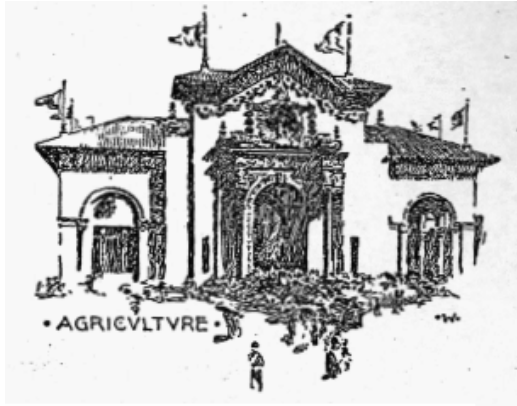
By JOHN M. CARRERE
Of Carrere and Hastings

In the four Pergola Buildings of the Exposition a unique treatment has been applied, making a structure of heavy character look light and arbor-like from the exterior. This effect has been secured by

trellis verandas on the front and back. The Pergola Buildings are adapted to serve either as exhibit buildings or as restaurants.

AGRICULTURAL BUILDING

By GEORGE F. SHEPLEY
Of Shepley, Rutan & Coolidge



The Agricultural Building is situated at the east of the Electric Tower, the narrow front, 150 feet in length, facing the Court of Fountains, and the principal front, 500 feet in length, on the Mall. This building is treated with great simplicity and very few features. The principal entrance is toward the Mall, -facing the Manufactures and Liberal Arts Building. Around this entrance is the greatest amount of enrichment. The decorations are designed with fruit, vegetables, and flowers, expressing the character of the building; and the large corbels are in the form of heads of animals of the field. This idea is carried around in the decorations of the cornice. There is a loggia on the south side of the building, overlooking the Mall,

formed of arches resting on single columns, with a ceiling of groined vaulting.

The treatment of the exterior, like that of the Manufactures and Liberal Arts Building, designed by the same architect, is Spanish Renaissance, adapted to express a spirit of exposition gaiety.

THE ELECTRIC TOWER

By JOHN GALEN HOWARD

Every artistic composition, whether it be a picture, a piece of sculpture, or a group of buildings, can be said to have a focus-some point or dominant feature which serves as a resting-place for the eye. The Electric Tower, by reason of its height and its central position, is such a focus in the midst of the main group of buildings of the Pan-American Exposition.

Since this may be called the Age of Electricity, it was fitting that the focal point of the Exposition should be so designed as to afford an opportunity of accentuating that fact by a lavish display of electric power. This display is in the form of a majestic fountain and a scheme of brilliant illumination. The source of the power is Niagara, and this is suggested not alone by the fountain and the basin at the base of the tower, but by various groups of statuary in the wings, which have been designed to symbolize the great bodies of water which are tributary to the stupendous cataract. The following groups occupy the niches at the extreme ends of the curved wings, and are arranged from west to east in order : Lake Michigan, by Mr. Louis A. Gudebrod ; Lake Superior, by Mr. Philip Martiny ; Lake Ontario, by Mr. Ralph Goddard ; Lake St. Clair, by Mr. Henry Baerer ; Lake Huron, by Mr. Philip Martiny ; Lake Erie, by Mr. Carl E Tefft

The spandrels of the niche in the south face of the tower and the smaller ones above the arch of entrance on the north side were modeled by Mr. Adolph A. Weinman, under the direction of Mr. Karl Bitter. -They represent the four rivers Niagara, Buffalo, St. Lawrence, and St. Clair. The keystones of these arches were modeled by the same sculptor.

Another feature of the sculptural embellishment of the tower which deserves special note is the Pan-American escutcheon on the south front of the shaft of the tower, above the water niche. This was modeled by Mr. Philip Martiny and Mr. Michele Giusti. Mr. Martiny was also the sculptor of the torch-bearers crowning the four corners of the terminal pavilions, and of the groups typifying Progress which embellish the pyramidal pylons on - the east, west, and north sides of the tower. The groups ornamenting the pylons on the south side adjoining the water niche were modeled by Mr. George Gray Barnard, and typify "The Great Waters in the Time of the Indian" and "The Great Waters in the Time of the White Man." The frieze with children, garlands of fruit, and eagles, beneath the loggia at the top of the shaft, was executed by Mr. Karl Bitter. The Goddess of Light which crowns the tower is the design of Mr. Herbert Adams, and is 16 feet in height.

The total height of the tower is 389 feet. The shaft of the tower is 77 1/2 feet square at the base and is built with steel framework, the walls being of staff. The colonnades which form the curved wings at the sides of the tower have an extreme width of 255 feet. The promenades on these colonnades afford a fine view of the court and the other main buildings. If one approaches the tower from the north, he may cross a bridge, enter, and take an elevator to the lantern at a level of 252 feet, which commands a superb outlook of the Exposition and the surrounding country. Aside from its function as an observatory, the interior of the tower is made of service to the people by means of restaurants.

As regards the architectural design of the Electric Tower, it may be called essentially American. As in the other buildings, use has here been made of classic and Renaissance forms, and certain "influences" may perhaps be pointed out by the critic; but the tower cannot be said to have been designed in any strictly defined traditional "style." It shows the trend of thought in this country, and may be taken as an example of modern American architecture.



THE OLD SPANISH MISSION

By GEORGE CARY

This reproduction of an old Spanish mission is situated south of the Stadium and directly northeast of the northeastern turn of the environing Canal. It is built in the style of the old Spanish missions, the east wing being almost a reproduction of the Mission of Santa Barbara, California. A chapel, cloisters, courts, and a shop, arranged about a garden on the banks of the Canal, compose the group, the walls stained with age, and the tiled roof green with moss.

A low, heavy tower with tiled dome, the walls thick and low, with window-openings grilled with heavy wooden bars, suggest Father Salvierderra in "Ramona" and the abode of the Franciscan monks of to-day. Fully in keeping is the lavishly planted garden, picturesque in its pointed cedars, its cocoanut trees, palms, and plants imported from the tropics, while a fountain graces the center, about which are grouped marble columns supporting branching beams, on which are perched gay-plumaged parrots and macaws.

Entering from the dike-walk on the Canal side, and passing through the arch under the tower, this garden is reached. Shut out at once from all the stir and whirl of the Exposition, surrounded by flowers and brilliantly colored birds, and the green of tropical trees, one is in some measure prepared for the quiet pictures within the building.

To the west of the garden the shop is entered, with walls wainscoted with patterns in the style of old Cordova leathers, and hung with scenery papers suggesting a landscape of forests and distant mountains.

The chapel, wainscoted with marble and rich with columns of mosaic and marble, serves as a fitting frame for the beautiful windows of the Leland Stanford Junior University of California, which is built in the mission style of architecture. These windows were executed in an artist's studio in New York, and were to be placed this summer; but Mrs. Stanford has permitted their exhibition here before installing them in the university building.

Looking through the archways south of the garden, a cloistered court is seen, about which implements of the farm are picturesquely arranged, suggesting the early monastic days when the brothers of the mission tilled the land, and worked in the shops among brilliant colors and artistic surroundings, with music and flowers and gardens to make their day's labor a pleasure, and their life one of peace and quiet and repose. And over all hangs the bell, whose story, so well told by Bessie Chandler, would seem to bring the legend home to us to-day.

THE TWO BELLS

I

Long years ago, -so runs the ancient story,
Two bells were sent from Spain to that far clime
New found beyond the sea, that, to God's glory,
And in his house, together they might chime.

II

And to this day one bell is safely swinging
Within its shelt'ring tower, where, clear and free,
It hallows each day with its mellow ringing.
The other bell, the mate, was lost at sea.

III

And when in gentle chimes the bell is pealing,
The people listen ; for they say they hear
An echo from the distant ocean stealing :
It is the lost one's answer, faint, yet clear.

BESSIE CHANDLER.

THE PLAZA

By WALTER COOK
Of Babb, Cook & Willard

The square to which the name of the Plaza has been given is a nearly isolated unit of the general composition, being situated at its extreme north end, on a somewhat lower level than the parts immediately touching it. For this reason, and on account of the very intimate connection between the buildings and the square which they surround, the entire treatment of both buildings and grounds was put in the same hands the one exception to the general rule which prevailed elsewhere.



The Electrical Tower of Mr. Howard, which dominates, and was meant to dominate, the whole scheme, terminates the Plaza on the south side. The other buildings have purposely been kept somewhat smaller in scale and less monumental in character, in order to give to the tower its full value. And as the tower on the south side faces the Court of Fountains, in which water is the great feature, the Plaza itself has been treated without basins or fountains, in order to secure a contrast of treatment.

The middle of the square is occupied by a Sunken Garden, surrounded by a double balustrade inclosing a terrace from which steps descend to the garden itself, the center of which is occupied by a band-stand. The four corners of the terrace are occupied by pavilions, which are intended to be let to *concessionaires*. The whole is intended to form a resting-place for visitors out of the direct line of communication.

THE RESTAURANT BUILDINGS AND ARCADES

By WALTER COOK
Of Babb, Cook & Willard

On either side of the square are buildings closely other, and having a double use. The lower part of open arcade, forming the entrance on the one side to on the other to the Stadium. The remainder of these buildings serve as restaurants.

The style of architecture adopted in these buildings is freely reminiscent of Spanish examples, and of their descendants in Spanish America, while no single building has been taken as a prototype. The character of the exhibition, in which only the Americas are represented, naturally suggested this inspiration, which is indeed evident in many other parts of the grounds. And it is this character which suggested calling the little square the Plaza.

THE STADIUM

By WALTER COOK
Of Babb, Cook & Willard

IN the mass of this amphitheater a great simplicity of style has been followed. The exterior is a series of columns with arches between; the seats in the interior back up against this arcade, and are terminated by a sort of attic, forming a promenade around the entire building, covered with gaily colored awnings and decorated with flags.

On the east the Colonnade becomes an open screen, giving a view through it to the fields beyond, and with openings, each of which is provided with a portcullis. When these are open they afford entrance to the various cavalcades or processions which are to give representations during the Exposition.

Gateway of Propylaea and entrance to stadium

On the west end is the main entrance, and above this the tribune, in which the seats are covered by a roof. This feature contains the festal part of the Stadium; the forms are light, representing in part bronze (while those in the Stadium proper are stone forms), and here the greatest amount of color and decoration has been used, the general idea being to accent this motive and make it contrast by its gaiety with the comparative simplicity of the rest of the building.

The dimensions of the Stadium are, length, about 680 feet, and width, 450 feet. The arena has been laid out to obtain a quarter-mile running-track.

Its extreme dimensions are about 569 feet in length and 260 feet in width. The seating capacity is about 12,000. It is intended to reproduce the spirit of the Pan-Athenaic Stadium cut in the side of Mount Pentelicus, near Athens.

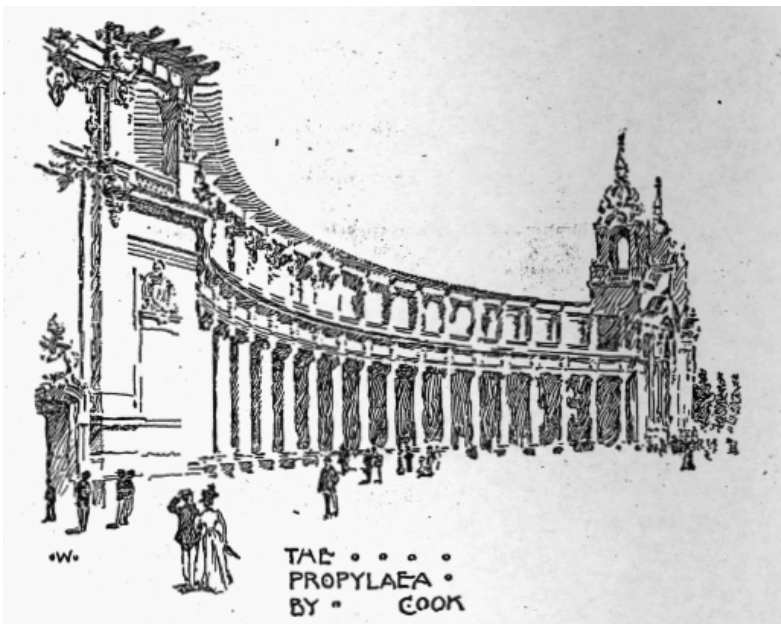
THE PROPYLAEA

By WALTER COOK
Of Babb, Cook & Willard

The north side of the Plaza is occupied by a colonnade surmounted by a sort of pergola with green vines and flanked by two large archways giving access from the railroad station. This structure, to which the name of the Propylaea has been given, forms the northerly end of the whole architectural composition of the Exposition. It is treated in a very free style, as regards the two archways especially, and seeks above all to manifest the Exposition character and be a gay festival entrance to a great fair.

In the buildings themselves but little statuary has been used; on the other hand, both statues and vases are employed freely in the treatment of the balustrades, and under the colonnade of the Propylaea.

The Visitors to the Stadium pass under the arcade of the building on the east side of the Plaza, traverse a small open-air vestibule defined by balustrades, and enter the Stadium itself.



THE ELECTRICITY BUILDING

By GREEN & WICKS

In style and spirit the Electricity Building is similar to the Machinery Building, by the same architects. The endeavor has been made to adapt the Spanish mission style of building, together with Renaissance features, to the purposes of the modern exposition and to add to it an air of gaiety and color. The architectural features of the Electricity Building recur in the Machinery Building, and are set forth under that head. The Electricity Building is 500 feet in length, 150 feet in width, and 160 feet in height.



THE BAZAAR BUILDING

By WILLIAM WELLES BOSWORTH

Situated beyond the Canal at the junction of the Mall and the Midway, and fronting on the Midway, was the only large building outside the main scheme which was built by the Exposition Company. - Destined for the exhibit and sale of all sorts of bijoux and souvenirs, the character of the design was studied to express a gaiety and "laissez aller" spirit consistent with the uses of the building. To express this spirit no style in the history of architecture is so well adapted as that of the French trellis-decorated buildings of the epoch of Louis XV, though it is dangerous when not used with restraint, being the expression of a generation renowned for moral decadence. When used as in this instance, where it is merely applied as surface decoration to a building composed with strong structural masses of wall surfaces in their relation to openings and great simplicity of architectural line and silhouette, it has great charm. The groups of children surmounting the balustrade, as well as the decorative bronzed figures in the niches between the windows, are the work of the sculptor Isidore Konti.

THE ACETYLENE BUILDING

By WILLIAM WELLES BOSWORTH

The Acetylene Building, situated on the Mall at the west of the Machinery Building and across the Canal, was built by the Exposition Company for the exhibits of the acetylene industry. Just opposite from the Bazaar Building, it shows an interesting contrast in architectural style. The main structural elements are equally simple and frank; ample openings for light give it the museum or exhibit-building character, while the seriousness of the nature of its exhibits is expressed by the reserve with which the ornament is applied in well-defined architectural limits, and the particular nature of the exhibits is made evident to the careful observer in the symbolism of the ornaments themselves. The evolution of lighting methods is worked out in the ornaments around the windows, from the fire-brand below up through the candle and classic lamp to the acetylene burner at the top, while above the cornice are groups of children holding acetylene torches which light the globe by M. Loester.

THE MACHINERY BUILDING

By GREEN & WICKS

In considering a style of architecture for the Machinery Building the thought impressed itself of the fundamental idea of the Exposition Pan-American: that is, a style expressive of "all the Americas." The logical thing to do, therefore, was to adopt the Spanish-American Renaissance, the typical style of architecture of this continent. It is a style that lends itself readily to exposition buildings, for it is not too serious and can readily be made gay and expressive of the exposition spirit. The mission building is the product of that period in Mexico and Lower California when the Jesuits and Franciscan friars practically ruled the country. They built many of these low, comfortable, arcaded, cloister-like structures. The early types, however, are too somber, though well suited, with their great covering-space, low roofs, and cool arcades, for exposition buildings. The style needs enlivenment, ornament, and color. These qualities have been taken from later and more pretentious Spanish buildings. The Machinery Building was built



around a court intended to be the chief feature of the building, as it was in the old Spanish structures, their peculiar charm being due to this quiet, retired court, with its flowers and pools of water. The court, however, in this case has been taken for exposition purposes, owing to the demand for greater

space by exhibitors. The façade of the building presents an arcaded, cloister-like appearance, the oak-timbered overhanging eaves producing the shadow. In the center of each face are placed the important entrances. On the north and south façade the entrances are flanked with towers, which form the most noticeable feature. The entrances between these towers are ornamented with single and double columns. They are flanked by arcades extending each way to the low corner pavilions. These are also used as entrances, and are ornamented in the manner of the Spanish Renaissance. The roofs are covered with the typical Spanish mission tile, and the window-openings with copies of the wrought-iron work peculiar to the Spanish style of building. The Machinery Building is 500 feet long by 350 feet wide, and the highest towers are 170 feet in height.

THE TEMPLE OF MUSIC

DESIGNED BY ESENWEIN & JOHNSON

The south front of the Temple of Music faces on the East Esplanade, the east front upon the Main Court. It corresponds on the general plan to the Ethnology Building, which occupies the corresponding position on the east side of the Main Court, and the motif of its design is similar. The ground-plan of the building is square, being 150 feet on a side. It is surmounted by a dome 180 feet high, suggestive in proportions of the dome of the Pantheon at Rome. In treatment the building is highly ornate. It is profusely decorated with pilasters sculptured in relief, and over each of the four pediments is a sculptured group by Konti. The auditorium of the building seats twenty-two hundred people, and contains one of the largest organs built in the United States. The building is used for musical recitals and choruses.

THE HORTICULTURAL GROUP

DESIGNED BY R. S. PEABODY
Of Peabody & Stearns

The Horticultural Group, so called, including the Horticultural Building and the Graphic Arts and Mines pavilions, corresponds in plan to the Government Group, and was designed to balance with it on the west end of the Esplanade. Its type of architecture is more suggestive of the buildings of northern Italy than of Spanish America. The loggias of the Graphic Arts and Mines pavilions are reproductions of the Villa Madonna at Rome, one of the most graceful of the productions of the Italian Renaissance. The modeling of the vaulted ceilings of these loggias is remarkably fine for exposition work, and the color treatment here is especially successful. In general composition the main building is formed on the plan of a Greek cross, with four huge arches on the principal axes and small octagonal pavilions filling in the corners. Above the whole rises a cupola, surmounted by an airy lantern. The entrance from the Esplanade is framed under an ample pediment ornamented with rich decorations in relief, and, picked out in color like the majolica work of Italy, it forms a beautiful background to the Fountain of Nature. The extreme height of the building is 240 feet.

THE NEW YORK STATE BUILDING

By GEORGE CARY

The New York State Building is situated on the north side of the west bay of the park lake, near the Elmwood Avenue entrance. Used as the New York State Building during the Exposition, it is to remain afterward a permanent building for the Buffalo Historical Society. The building is of white Vermont marble, in the classic order of architecture known as the Greek Doric, being of the same order as the Parthenon at Athens, by Pericles. This would seem best to harmonize with the Albright Art Gallery on the opposite side of the water, designed in the spirit of the Erechtheum, which stands with the Parthenon on the Acropolis.

The Greek Doric is suggestive of solidity and force, has little carving, and its lines are all curved slightly upward. As exhibited in the monuments of the age of Pericles at Athens, the Greek Doric combines with solidity and force the most subtle and delicate refinement of outlines and proportions that architecture has known.

The building is a rectangle about 130 x 80 feet and 50 feet high. On the north front is located the statue "Aspiration," by Mrs. Harry Paine Whitney. The northern façade is faced with three-quarter columns, and the entrance is through a vestibule, the bronze doors of which were the gift of the president of the Buffalo Historical Society, Mr. Andrew Langdon. The panels in these doors, representing "History" and "Ethnology," are the work of Perry. On the south, dividing the paths leading to the park, are Andersen's equestrian groups called "Progress," and between these two on the axis of the building is Andersen's bronze group termed "Affinity." At the starting-point of the grand marble staircase leading up to the southern entrance stands Elwell's statue of "Intelligence," described elsewhere.



The southern entrance is through a portico 61 x 17 feet, embellished by ten Doric columns, and commanding a view of the park lake, the electric fountains, and the park.

The floor-level is taken 7 feet above ground to the north, while to the south the grade is kept at the ground-level of the basement, so as to get good light, and to enter the bicycle-room and other rooms of

the basement direct. The height of the basement is 14 feet. Here is the dining-room, facing the park to the south, the bicycle-room, kitchen, and janitor's quarters (entered from the hail and from outside), also boiler-rooms, etc., and the storage-room to the west, under the audience-hall. The ground or first floor is 15 feet high. Here is the audience-hall, which seats 250 persons.

The library occupies the eastern end of the building on this floor, and between the library and the audience-hall is the grand hall, stairway, and gallery. This grand hall, finished in black marble and gold, the largest room on this floor, may be given over to museum purposes, opening up into the upper floor to be used for larger relics.

North of this grand hall is the lobby, giving access to the governor's room to the east, a committee-room to the west, to cloak-rooms and toilet-rooms, as well as an entrance to all the other rooms on this floor.

The second floor runs up into the roof, making the rooms 18 feet high. It is lighted entirely by skylights, and will be used for museum purposes.

The building is absolutely fire-proof. It is planned to accommodate not only the ultimate needs of the Historical Society, but also the immediate needs of the Exposition. It is provided with a heating and ventilating plant, and is lighted by a thousand electric lights.

THE FIRE-PROOF ART BUILDING

By GREEN & WICKS

The Art Building is built of rough red brick, of attractive color, laid in a wide joint. Its central architectural feature is the Statuary Court in the interior. The architectural details of the exterior are Spanish Renaissance, resembling those of the palace in Palma, on the island of Majorca. The cornice of the building is old brown oak. Surrounding the structure, at the level of the first floor, are niches containing antique statues. The Art Building is 220 feet in length, 105 feet in width, and 34 feet in height. This structure was erected to provide temporarily for the exhibits of fine arts when an unforeseen delay in securing the marble for the Albright Art Gallery made it impossible to complete that building in time for the Exposition.

STATE, FOREIGN, AND AUXILIARY BUILDINGS

THE FORESTRY BUILDING, designed by the Exposition Architectural Bureau.- The Forestry Building is situated northwest and adjacent to the Indian Mound, which is conspicuous in the southeastern corner of the Exposition grounds. It was intended to house the forestry exhibit in the south pavilion of the Horticultural Group, now known as the Mines Building, but a change in this plan was necessitated, and a separate structure was erected. The Forestry Building is built of logs in the manner of the settlers' log cabins. It is 150 feet long by 100 feet wide, and presents an interesting contrast with the complex and highly developed examples of architecture in the Main Court.



OHIO STATE BUILDING, a low, gracefully proportioned building, with wide verandas, classic in treatment, designed by John Eisemann, Cleveland, Ohio

ILLINOIS STATE BUILDING, a combination of the classic and Italian-Renaissance styles, designed by J. M. White of Champaign, Illinois. -

HONDURAS BUILDING, a pavilion, Spanish in style, with cupola treatment of roof.

CUBAN BUILDING, Spanish Renaissance, with dome, designed by James Ackerman of Buffalo. ,
CHILE BUILDING, built of structural steel and closed in with glass, designed by C. I. Williams of
Dayton, Ohio.

PORTO RICAN BUILDING, a small pavilion of staff, with beams and ornamental timbers disclosed.

PENNSYLVANIA STATE BUILDING, an attractive structure, colonial in style, with cupola,
designed by the State Superintendent of Grounds and Buildings, Harrisburg, Pennsylvania. - -

NEW ENGLAND STATES BUILDING. This structure, representing the New England States
combined, is a type of early New England colonial building, colored to give the effect of red brick and
white marble. It was designed by Josephine W. Chapman of Boston, Massachusetts. - - - -

GUATEMALAN BUILDING, a square frame structure, classic in treatment. -

SANTO DOMINGO BUILDING, a small frame structure, painted in white and cream,
designed by C. I. Williams of Dayton, Ohio.

MICHIGAN STATE BUILDING, a handsome structure, pure colonial in style,
designed by George H. Barbour of Detroit, Michigan.

NEW JERSEY STATE BUILDING, a small structure, Spanish in treatment, designed by A. C.
Jenkinson of Newark, New Jersey.

ECUADOR BUILDING, noticeable by its high gable and Queen Anne style - of outline, designed
by-James & Leo of New York City.

MINNESOTA STATE BUILDING, Spanish Renaissance in treatment, designed by Dudley &
Beardsley of Buffalo, New York.

WISCONSIN STATE. BUILDING, classic roof and Gothic treatment of windows and doorways,
designed by A. C. Clas of Milwaukee, Wisconsin.

DAKOTA STATE BUILDING. The striking feature of this building is a castellated tower, the
remainder of the structure being accorded a Spanish treatment.

MEXICAN BUILDING, an attractive building of Spanish architecture.

KNIGHTS OF THE MACCABEE5 BUILDING, a small but pleasant structure, Spanish Renaissance
in style.

A. O. U. W. BUILDING, Spanish in treatment, with second story open to serve as roof garden.

ORDINANCE BUILDINGS, Spanish in treatment, designed by the United States Government
Architectural Bureau, J. Knox Taylor, Superintendent.

DAIRY BUILDING, a reproduction of a Swiss chalet, designed by the Exposition Architectural
Bureau.

SERVICE BUILDING, Spanish in style, designed by the Exposition Architectural
Bureau.

LARXIN SOAP BUILDING. The main structure is classic in treatment, and is surmounted by a
dome in the spirit of the Italian Renaissance, designed by Lansing & Beierl of Buffalo, New York.

THE PICTURESQUE MIDWAY

By FREDERICK W. TAYLOR OF CONCESSIONS

[In contrast with the main plan of the Exposition, where the architectural features harmonize and for the most part are conceived in the same style, is the architecture of the Midway. Here the buildings express the fantastic diversity of races, ideas, and amusements, as in the Exposition proper they express arrangement and uniformity. But despite the architectural incongruity of the Midway as a whole, there are single architectural effects of great charm and interest. Such concessions as "The Streets of Venice" and "Alt Nurnberg" are accurate reproductions of famous old-world styles of building. As Director of Concession Mr. Taylor, author of the following article, supervised the formation of the Midway. He is therefore the highest authority as to its nature and interests. -EDITOR.]

The “Midway,” as a name applied to an amusement section of an exposition, seemed to the management of the Pan-American Exposition to have become so firmly impressed on the public mind as to be the only one to apply to that feature of the first exposition in the new century.

The name came about in this wise- but, on second thought, that is irrelevant and belongs to another story.

There are two distinct phases of the Pan-American Midway. One is composed of the distinctly amusement features, and the other is made up of those which are primarily, or largely, educational. That there is an educational side will not have occurred to many persons, but it is more than likely that no single phase of the Exposition in architecture, exhibits, or concessions will leave a more lasting impress than will the ethnological features of the various villages. Great effort has been made to have these features correct in every way.

Next to a sojourn in Mexico, in the portions of the West still inhabited by Indians, in Labrador, Hawaii, or the Philippines, are the effects produced by visits to the villages peopled by real men and women of the various countries mentioned, living in houses the counterparts of those they occupy at home, surrounded by the same implements, wearing the same clothing, or absence of it, and whiling away time with the same dances or other amusements.

The educational side is also present, in large proportion, in the zoological series of which the wild-animal arena and the ostrich farm are examples, and the pictorial series of which the cyclorama and the panopticon are illustrations. All these are clearly instructive and healthful, and at the same time furnish sufficient reason for passing away pleasantly, and profitably, portions of the time available for visits to the Exposition.

The more purely theatrical side is provided by “Darkness and Dawn,-” “Trip to the Moon,” “House Up-side Down,” and “Dreamland.”

The methods of directing and the products of human toil are illustrated in the Colorado Gold Mine and the Glass Factory, while those who are searching for sensations will find them in the aëro cycle, the captive balloon, the scenic railway, the merry-go-round, and the miniature railway.

If the attempt to classify the attractions has any merit, it may be presented, perhaps, somewhat roughly as follows:

ETHNOLOGICAL

African Village
 Alt Nurnberg
 Beautiful Orient
 Chiquita
 Eskimo Village
 Gypsy Camp
 Hawaiian Village
 Indian Village
 Infant Incubator
 Japanese Village
 Mexican Village
 Old Plantation
 Philippine Village
 Venice in America

ZOOLOGICAL

Bostock’s Animal Arena
 Diving Elks
 Educated Horse “Bonner”
 Ostrich Farm

PICTORIAL

Cineograph
 Cleopatra
 Dawson City
 Fall of Babylon (Painting)
 Johnstown Flood
 Kilauea
 Living Pictures
 Missionary Ridge
 Mutoscopes
 Panopticon

HUMAN LABOR

Colorado Gold Mine
 Glass Factory

THEATRICAL

Darkness and Dawn
 Dreamland
 House Upside Down
 Trip to the Moon

MERCHANDISING

Bazaar

SENSATIONAL

Aéro Cycle
 Captive Balloon
 Merry-go-round
 Miniature Railway
 Scenic Railway

GASTRONOMIC

Restaurants

The heading "Merchandising" has only one entry under it, the Bazaar ; but in a few special cases selling is permitted in certain exhibits buildings, the thought being that only articles manufactured upon the grounds, or those having value as souvenirs, be offered the guests of the Exposition.

This leaves to be covered only those articles of food and drink which are to be classed as necessities. Special effort has been made to provide restaurants of such classes as may enable any person of any taste and with any sized bank-account to find satisfactory service at fair prices. - There are places serving "a la carte," others "table d'hote," and yet others "lunch-counter" style. In many places a good meal can be had for from twenty-five to thirty-five cents, while in others you may pay a dollar, or two dollars, or more, and still get your money's worth.

To assemble the amusement and catering features of an exposition is not a short nor is it an easy task. Those who have had the responsibility of serving the Pan-American millions in the capacity of gatherers and assorters of the things which go to make a visit pleasant, profitable, and comfortable, submit the result of their labors with some pride, a little apprehension, and hearty good wishes for those who are to test the results of their labors.

HOW TO LOOK AT PICTURES

By MRS. SCHUYLER VAN RENSSLAER

Author of "English Cathedrals," "Art Out of Doors," etc

The Art-Gallery of the Pan-American Exposition contains, undoubtedly, the best collection of American works of art that has ever been gathered; and they are so arranged that they may be studied to the best advantage, the contributions of each artist being grouped together. Such a collection deserves to be approached in the right mood and the right manner.

The first step toward appreciating and enjoying works of art is to recognize the difference that may exist between the verdict of true judgment and the verdict of personal taste. Often, of course, the two may coincide. But the fact that a picture does not greatly please our own eyes should not convince us that it is a poor picture. We do not decide in this way about other things. No one says, "I don't care to read a book of that kind-therefore it is a poor book"; nor, "That bonnet is unbecoming to me-therefore it is an ugly bonnet." But too often we do say, "I should not care to buy that picture, to - live with it therefore it can't be a fine picture."

Rules for the discovering of true excellence cannot, of course, be laid down in words. They must be learned by educating the mind and the eye in the presence of actual works of art, and, moreover, in the presence of Nature also; for very few eyes untrained in art have ever really looked at Nature in such a way as to be entitled to trust their own testimony in regard to the question whether or not an artist has truthfully portrayed any phase of it.

Nevertheless, one general counsel can be given to the inexperienced: Try to put yourself at the artist's point of view, try to understand what he has endeavored to do, before you say whether he has done it well or not.

This counsel is needed even in the most literal sense. Often the effect of a picture depends very greatly upon its distance from the observer's eye. There are many methods of painting, from the most minute and (to use a general but inaccurate term) "highly finished," to the most broadly generalized; and each method, each given canvas, appears at its best from some special distance. To walk about a gallery close to the pictures, studying each as narrowly as possible, is to misread, to misunderstand, the language in which most of them have been written. It is not a habit peculiar to our time. Centuries ago Rembrandt remarked to one of his visitors that pictures were meant to be looked at, not to be smelled. But it is a more unfortunate habit in our own time than it was in certain earlier ones, for modern methods of painting are most often less well adapted to examination at the end of one's nose than were those-to cite an extreme instance - of the so-called "Little Masters" of Holland. A miniature which can be taken

in the hand and a wall-painting fifty feet above our head differ as much in the way they are painted as do, in the way they are played, the tenderest violin solo and a military march by a brass band. Between them are works which are meant to be seen at all possible varieties of distance; and the first effort of one who looks at them must be to discover the right points of view in a literal, physical sense.

There is a right point of view also in regard to an artist's choice of subject. He may paint things *you* would never have chosen. Nevertheless, if his work is well done it ought to give you pleasure of some sort; and it probably will if you will take the time to examine it, trying to see why the artist selected it for what special beauty of color or line, of light and shadow, of character or meaning.

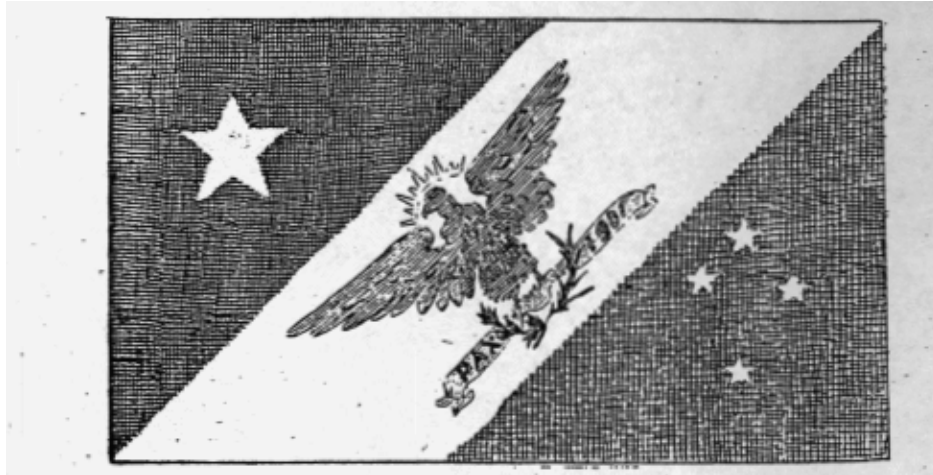
Then it should be remembered that no kind of painting is or can be a literal and complete representation of the chosen subject, any more than a story can be a full and complete record of all that its characters did and said and felt during the period that it covers. To paint a picture or to tell a story, one must select and condense, omit here and accentuate there. Much must be packed into little; and the result may often be a suggestion rather than a record of the chosen subject, leaving a great deal to the imagination of him who reads the tale or looks upon the canvas. There are many beautiful pictures, indeed, which should be compared rather to brief poems than to stories-which are meant rather to stimulate the memory or to awaken the fancy than to portray facts. The artist has as much right as the worker in words to choose what he shall do. The observer (unless he intends to buy as well as to look!) should merely question whether he has succeeded in his special aim. If he asks for a plainly told anecdote when a poetic suggestion is offered him, he does injustice to the painter and ruins his own chances of enjoyment. Yet this is what that many-minded creature called "the general public" constantly does in a picture-gallery. It complains that all the blades of grass in the foreground of a landscape are not defined, when the painter has cared nothing about them for the moment because he has wanted to suggest the effect of a cloud-shadow on a meadow, or a wind in the tree-tops, or the glow of a sunset sky, and knew that to make his grass-blades conspicuous would distract the eye from this, the central thought, the main intention, of his picture. Or in looking at a portrait the public complains that only the head is "finished," that the gown and the hands are but "roughly" or "carelessly" done, when the painter has wished, perhaps, to concentrate attention upon a beautiful effect of light falling upon the head, and has purposely and very wisely subordinated the other portions of his work. Such instances as these might be almost indefinitely repeated. And they bring me to another point: As truly as the painter may choose what he will paint, and dwell upon some factors in his subject more than upon others if he thinks best, so he may choose the kind of treatment, of handling, of painting in the technical sense, that he will use to express his idea. And if he expresses this idea well, then his picture is well painted and is as "highly finished" as it ought to be.

This very popular term- "highly finished" -is, as I have said, an inaccurate one. It implies that every painter ought to elaborate his canvas as carefully as any brush could, and every part of it in equal measure. But, in truth, the most full and complete expression of a subject is sometimes given by means of brush-work, which is very far indeed from minute, and, when examined close at hand, seems very careless. Notice, for example, some of the pictures by Mr. John Sargent in this collection. Look at them for a moment - not for the sake of enjoyment but of instruction -as closely as you can. Their meaning as an interpretation of Nature will almost disappear. Then go to a distance and look again. You will find them more truthful, more vividly real, and therefore in the genuine sense more skilful and careful pieces of painting than you have often seen. Some of the greatest painters have done their best in this fashion, always or at times. It resembles, for example, the fashion in which Velasquez, one of the greatest artists that ever lived, used his brush. Others, like Holbein, worked minutely, and their pictures can be enjoyed from the nearest point of view as well as from more distant ones. The main thing is not how a painter works but what result he achieves. If the result is truthful and alive, if it portrays or suggests something that he really saw, then his method is good. Your part, as an intelligent observer who wants to enjoy - and to learn, is to try to discover what he saw, why he cared to paint it, what he wished his picture to convey to you, and whether he speaks his meaning clearly. And it is surprising how quickly, looking at

good pictures in this mood, even the inexperienced may learn something about real pictorial excellence - how soon they will understand that such excellence can be enjoyed even though it does not coincide with strong personal preferences, and how delighted they will be by this enlargement of the power to receive from varied works of art varied kinds of pleasure of the eye and pleasure of the mind.

THE PAN-AMERICAN EXPOSITION FLAG

By PROFESSOR EDWARD S. HOLDEN



Designed by Miss Adelaide J. Thorpe.

[The Pan-American flag is quadrangular and is divided into three sections: The triangle nearest the staff is blue, with the North Star upon it in white. The triangle at the opposite corner is red, on which the four stars of the Southern Cross are set in white. The parallelogram between the triangles is white, on which an eagle in gold is depicted. - Professor Edward S. Holden of Columbia University, who is the leading authority on the symbolism of flags, has written the following explanation of the Pan-American flag for the Art Hand-Book.]

A FLAG is an emblem, a symbol, and like all symbols should summarize and express a history. The national flag of the United States, for example, expresses a history of thirteen colonies originally banded together to resist tyranny, and afterward joined in a Federal Union, which now includes forty-five sovereign States - a star for each State, a stripe for each colony, a blue union to hold new stars for new States as they shall be created and admitted.

The colors red, white, and blue are the revolutionary colors. Our independence was founded on revolution. In the French tricolor, adopted in 1794, the revolutionary colors appear in three broad vertical stripes. The independence of all the States of North and South America was founded on revolution against - the rule of Europe; therefore the colors red, white, and blue have been adopted for the inclined bands of the brilliant flag of the Pan-American Exposition of 1901. The red and the blue bands are triangles. The revolutionary flag of Puerto Rico bore a blue triangle with a single silver star; a red triangle with a silver star forms a prominent part of the flag of Cuba; red, white, and blue stripes distinguish the flag of Hawaii; also every State and dependency of the United States of America is symbolized and expressed in the Exposition flag.

The red ensign of Great Britain, marked with a coat of arms, is the flag of Canada. All of the northern countries of the American continents collectively are symbolized by the cool blue segment which bears the single star - the North Star - Polaris. All of the southern countries collectively are symbolized by the warm red segment charged with the four stars of the Southern Cross (which is itself an emblem of the vast Republic of Brazil). The white band between these segments is the white band of Peace. It bears the eagle of liberty, and the eagle forms a part of the arms of the United States, of Mexico, and of Colombia.

Over the head of the eagle is the rising Sun, which is found on the flags of the Argentine Republic, Uruguay, Bolivia, Peru, Costa Rica, and the Greater Republic of Central America. The intertwined palm-branch and pine again express the union of the North and South. Stars are found, either singly or in groups, on the flags of Samoa (a dependency of the United States), Chile, Paraguay, and Venezuela.

The colors of the flags of all the Pan-American countries are combinations of red, white, blue, yellow, and green, and every one of these colors is represented in the Exposition Flag. The simple motto *Pax* (Peace) symbolizes a relation that the Exposition itself will greatly foster. In this flag -we find the expression of the policy of a great group of powerful and enlightened nations.

ERRATUM

No. 75, The Genius of Man, a group by Paul W Bartlett, described on page 66, was not erected in the position at the north end of the Court of Fountains as was intended. Instead it has been placed on the bank of the Park Lake near the Art Gallery.

Sculpture groups, Nos. 91 A and 91 B, credited on page 70 to Charles A. Lopez of New York, should have been credited to Mr. A. Phemister Proctor.